

HIGH SPEED TEXT SEARCH SYSTEM

HSTS SOFTWARE
LISTINGS

VOL. 1 OF 5

Master
Computer
Support

STAT

NGA review(s) completed.

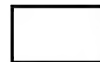
HSTS MASTER COMPUTER SOFTWARE LISTINGS

SL120100

VOLUME 1 of 5

Prepared for:

Central Intelligence Agency
Washington, DC 20505



R80-016

March 1980

STAT

STAT

MASTER COMPUTER
SUPPORT

INIT... MACRO:M1110 27-MAR-80 13:21

TABLE OF CONTENTS

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

10-	2	MACRO'S AND CONSTANTS
11-	23	ASSEMBLY-TIME DATA DEFINITION
12-	83	INITIALIZE MASTER COMMON

INIT... MACRO M1110 27-MAR-80 13:21 PAGE 10

```

1      .TITLE .INIT
2      .SBTTL .MACRO'S AND CONSTANTS.
3
4      ;
5      .MCALL .QIOW$C,ALUN$S.
6      .MCALL .NMBLK$,FDOF$L,FCSBT$,FINIT$
7      .MCALL .FDBDF$,FDRCA$,FDBK$A,FDOF$A,FSRSZ$
8      .MCALL .RQST$S,EXIT$S,RQST$C,RUN$C.
9
10     ;
11     .GLOBL .DIRP74,DIRP75,DIRP31,DIRP32.
12     .GLOBL .GTDIR.
13     .GLOBL .PUTSSQ,GETFRE.
14     .GLOBL .SUST,SUINDX.
15     .GLOBL .STATSS,STATSE.
16
17     ;
18     ;LUNS.
19     DPLUN=1
20     XMLUN=2.
21     ;
22     ;MISC EQUATES.
23     EF,IO=1      ; I/O EVENT FLAG.
24     ;

```

000001

000002

000001

INIT...MACRO:M1110 27-MAR-80 13:24 PAGE:1
 ASSEMBLY-TIME DATA DEFINITION.

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

23          .SBTTL ASSEMBLY-TIME DATA DEFINITION.
24          ;
25          ; DUMMY FDB
26          FDOF$F.
27          FCSBT$
28          ;
29          FDB: FDBDF$
30          FDRCA$ FD,RWM.
31          FDBK$A BUFFER,N,BUFB,,EF,IO,Iostat.
32          FDOF$A DPLUN.
33          ;
34          FSRSZ$ 0
35          ;
36          ; DUMMY NAME BLOCK TO GET DIRECTORY FID'S
37          DUMNBK: NMBLK$ ...SY,0
38          ;
39          ; DIRECTORY NAME DESCRIPTORS.
40          DIRDS1: .WORD 5
41          .WORD DIRDT1
42          DIRDT1: .ASCII <17,41>.
43          .EVEN.
44          DIRDS2: .WORD 5
45          .WORD DIRDT2
46          DIRDT2: .ASCII <17,51>.
47          .EVEN.
48          DIRDS3: .WORD 7
49          .WORD DIRDT3
50          DIRDT3: .ASCII <1300,11>.
51          .EVEN.
52          DIRDS4: .WORD 7
53          .WORD DIRDT4
54          DIRDT4: .ASCII <1300,21>.
55          .EVEN.
56          ;
57          ; DIRECTORY ADDRESS TABLE.
58          DIRTBL: .WORD DIRDS1
59          .WORD DIRP74
60          .WORD DIRDS2
61          .WORD DIRP75
62          .WORD DIRDS3
63          .WORD DIRP31
64          .WORD DIRDS4
65          .WORD DIRP32.
66          ;
67          ; MISC LOCATIONS.
68          BUFFER: ; DUMMY BUFFER.
69          IOSTAT: .BLKW 2 ; I/O STATUS BLOCK.
70          ;
71          ; DMCIN TASK NAME TABLE.
72          ;
73          DMCTBL:

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

INIT...M1110 27-MAR-80 13:24 Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3
ASSEMBLY-TIME DATA DEFINITION

74	000000	N=0	
75	000002	.REPT.	N.SUNT.
76		.IRP.	Z,<NN>
77			.RAD50 /DMC IN 'Z' /
78		.ENDR.	
79		N=N+1	
80		.ENDR.	
81		:	

INIT: ...M1 M1110 27-MAR-80 13:21 PAGE: 11-1
ASSEMBLY: ...DATA DEFINITION:

74	000000	N=0	
75	000002	.REPT. N, SUNT.	
76		.IRP. Z, <NN>	
77		.RADSO /DMCIN:Z'Z'.	
78		.ENDR.	
79		N=N+1	
80		.ENDR.	
81			

```
83          .SBTTL  INITIALIZE MASTER COMMON
84
85 000306      INIT:
86 000306      FINIT$
87
88          : INIT FID'S OF SYSTEM DIRECTORIES.
89 000312  012700  000000'  MOV.  #FID,R0      : FID ADDRESS.
90 000316  012701  000140'  MOV.  #DUMNBK,R1   : DUMMY NAME BLOCK.
91
92 000322  012703  000252'  MOV.  #DIRBL,R3      : DIRECTORY ADDRESS TABLE.
93 000326  012704  000004'  MOV.  #4,R4        : LOOP COUNT.
94
95 000332  012302.  DIRLOP: MOV.  (R3)+,R2.      : DIRECTORY DESCRIPTOR ADDRESS.
96 000334          CALL.  .GTDIR.                : GET DIRECTORY FID.
97 000340  012302.  MOV.  (R3)+,R2.              : COMMON MEMORY ADDRESS.
98 000342  016712.  MOV.  DUMNBK+R2,DID,(R2)     : COPY FID TO DUM.
99 000346  016762.  MOV.  DUMNBK+R2,DID+2,2(R2)
100 000354  016762.  MOV.  DUMNBK+R2,DID+4,4(R2)
101 000362  077415  SOB.   R4,DIRLOP.
102
```

```
104  
105  
106  
107 000364 012767 177777 177776G  
108 000372 012700 000001  
109 000376 006300  
110 000400 016001 000000G  
111 000404 006200  
112 000406 012761 000000 000000  
113 000414 005300  
114 000416 100367  
115  
116  
117  
118  
119 000420 012700 000000G  
120 000424 012701 000000C  
121 000430 005020  
122 000432 077102  
123  
124 000434  
125  
126  
127  
128 000442 012700 000001  
129 000446 012701 000302  
130 000452  
131  
132 000472  
133 000500  
134 000506  
135 000532 162701 000004  
136 000536 005300  
137 000540 100344  
138  
139  
140  
141  
142 000542  
143  
144  
145 000550  
146 000554 112762 000000 000002  
147 000556 112762 000000 000003  
148 000570 005062 000004  
149 000574  
150  
INIT-SUST:  
MOV: #1,SUNT-2.  
ISULOP: MOV: #N,SUNT-1,R0 ;SET-SU'S-TO-IDLE.  
I$: ASL: R0  
MOV: SUINDX(R0),R1  
ASR: R0  
MOV: #SU,IDL,SS,SYT(R1)  
DEC: R0  
BPL: I$  
INIT-HOURLY-STATS:  
INHSTT: MOV: #STATSS,R0 ;CLEAR-STATS-AREA.  
MOV: #(<STATSE-STATSS>/2,R1  
I$: CLR: (R0)+  
SOB: R1,I$  
RUN$: HRSTAT,....1,1,45..2. ;SCHEDULE-HOURLY-STATS.  
INIT-THE-DMC-TO-THE-SEARCH-UNITS:  
DMCLP: MOV: #N,SUNT-1,R0 ;HIGH-SU-#  
MOV: #DMCTBL+4*(N,SUNT-1)>>,R1 ;DMCIN-TASK-NAME.  
L1: ALUN$: #XMLUN,#X01,R0  
QIOW$: IO,TRM,XMLUN,EF,IO-  
QIOW$: IO,INL,XMLUN,EF,IO-  
RQST$: R1 ;RUN-DMCIN  
SUB: #4,R1  
DEC: R0 ;LOOP-FOR-ALL-SU-  
BPL: L1  
START-THE-SCHEDULER:  
RQST$: SCHED00 ;BATCH-0 IS-OFF.  
PRIME-SCHED00  
CALL: GETFRE- ;FORCE-SCHEDULER-INITIALIZATION.  
MOVB: #XMSCHED,2(R2)  
MOVB: #0,3(R2)  
CLR: 4(R2)  
CALL: PUTSSQ.
```

10000000

EXIT\$5-

0003061

.END- INIT

[illegible]

000
001
002
003
004
005
006
007
010
011
012
013
014
015

10- 2- SCHEDLER-ROUT SEGMENT

```
1 .TITLE- MSCHED-  
2 .SBTTL- SCHEDULER-ROOT SEGMENT-  
3  
4  
5 .MCALL- FDBDF$,FDRCA$,FDBK$,FDRP$,FSPSZ$  
6 .MCALL- FINIT$,FDOF$,FCSBT$  
7 .MCALL- ALTP$S-  
8  
9  
10 .GLOBAL- RSTPTR,GETFRE,PUTSSQ-  
11 .GLOBAL- STTENT-  
12 .GLOBAL- BN- :BATCH-# - GLBDEF'D- IN- TKB-  
13  
14  
15 : SCHEDULER'S- FDB  
16  
17 FDOF$-  
18 FCSBT$  
19  
20 FDB: FDBDF$  
21 FDRCA$- FD,RWM-  
22 FDBK$- DATBUF,N,BUFB,,1,I0STAT-  
23 FDRP$- 1  
24  
25 FSPSZ$ 0  
26  
27  
28 I0STAT- .BLKW- 2- :I/O- STATUS- BLOCK-  
29 DATBUF- :REENTRANT- SAVE- AREA- FOR- STT-  
30 .BLKW- <N, DURY*2>+4 :BIG- ENOUGH- TO- HOLD- BATCH- CUT-OFF- MSG-  
31
```

```
33 000320      .MSCHED:
34 000320      F INIT$
35
36 000324 012705 000000G MOV.  #BN,R5      :GET OUR BST ADDRESS
37 000330 016505 000000G MOV.  BSTPTR(R5),R5
38
39 000334 112765 000001 000053 MOV.  #BS,OPN,B,STTE(R5) :BATCH IS OPEN
40 000342 012765 000000* 000010 MOV.  #FDB,B,SFDB(R5) :SCHEDULER'S FDB
41 000350 005065 000124 CLR.  B,HRLU(R5) :INIT HRL WORDS
42 000354 012765 000240 000120 MOV.  #S,HRL,B,HBLK(R5)
43
44 000362      CALL GETFRE
45 000366 112762 000000 000002 MOV.  #XMSCHED,2(R2) :PRIME SSO TO LOOK -
46 000374 112762 000004 000003 MOV.  #4,3(R2) : AT QUO
47 000402      CALL PUTSSO
48
49 000406      ALTP$S ,#40, :RUNNING PRIORITY
50
51 000434 000167 000000G JMP.  STTENT :START STATE TABLE
52
53
54      000320*      .END MSCHED
```

SYMBOL TABLE

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

BIVAL = 000000	B.QMAP 000234	010 FD.INS = 000010	F.CHR = 000075	N.DID = 000024
BIT0 = 000001	B.QSPL 000316	010 FD.ISP = 002000	F.CNTG = 000034	N.DVNM = 000032
BIT1 = 000002	B.QTTM 000076	010 FD.LEN = 000010	003 F.DFNB = 000046	N.FID = 000000
BIT10 = 002000	B.QUOP 000056	010 FD.MNT = 100000	F.DSPT = 000044	N.FNAM = 000006
BIT11 = 004000	B.SFDB 000010	010 FD.OSP = 004000	F.DVNI = 000134	N.FOS = 000764
BIT12 = 010000	B.SIZE 000772	010 FD.PLC = 000004	F.EFBK = 000010	N.FTYP = 000014
BIT13 = 020000	B.SNDP 000012	010 FD.PRN = 000004	F.FFN = 000050	N.FVER = 000016
BIT14 = 040000	B.SSQ 000004	010 FD.PSE = 010000	F.FOBB = 000032	N.NEXT = 000022
BIT15 = 100000	B.SSQF 000050	010 FD.RAH = 000001	F.FRR = 000052	N.PKSZ = 000020
BIT2 = 000004	B.STAT 000044	010 FD.RAN = 000002	F.FHCC = 000043	N.PKTS = 000043
BIT3 = 000010	B.STTE 000053	010 FD.REC = 000001	F.FFBY = 000014	N.DURY = 000031
BIT4 = 000020	B.UDOC 000110	010 FD.PWM = 000001	F.FNAM = 000110	N.STAT = 000020
BIT5 = 000040	CF.B0 = 000070	FD.SDI = 000020	F.FNB = 000102	N.SUNT = 000002
BIT6 = 000100	CF.B2 = 000067	FD.SOD = 000040	F.FLYP = 000116	N.UNIT = 000034
BIT7 = 000200	CF.B4 = 000066	FD.TTY = 000004	F.FVLR = 000120	PUTSSO = *****
BIT8 = 000400	CF.B6 = 000065	FD.WBH = 000002	F.HIBK = 000004	QE.R01 = 000144
BIT9 = 001000	CF.DR0 = 000064	FF.CHR = 000005	F.LUN = 000042	Q.FDSC = 000004
BN = *****	CF.DR1 = 000063	FF.NV = 000003	F.MBCT = 000054	Q.NOBK = 000000
BSTPTR = *****	CH.AND = 000001	FF.POE = 000002	F.MBC1 = 000055	Q.NUHL = 000002
BS.CLS = 000002	DATBUF 000144R	FF.PWD = 000001	F.MBFG = 000056	Q.SIZF = 000014
BS.DBU = 000004	DASLEN = 000116	FF.PW = 000006	F.NRBD = 000024	R.FIX = 000001
BS.INA = 000000	DH.BF0 000002	005 FF.SPC = 000004	F.NPEC = 000030	R.SEQ = 000003
BS.OPN = 000001	DH.BF1 000004	005 FN.DBR = 000036	F.OVBS = 000030	R.VAR = 000002
BS.SRC = 000003	DH.CTL 000000	005 FN.DBS = 000022	011 F.RACC = 000016	SR.APE 000114
BYTE0 = 000000	DH.DMC 000010	005 FN.DHR = 000040	011 F.RATT = 000001	SR.ARS = 000106
BYTE1 = 000001	DH.FLG 000006	005 FN.FMA = 000012	011 F.RCNM = 000034	SR.DAT = 000010
BYTE2 = 000002	DH.DCK 000000	013 FN.FNB = 000014	011 F.PCTL = 000017	SR.DLT = 000014
BYTE3 = 000003	DH.NTP 000004	013 FN.FNC = 000016	011 F.RSIZ = 000002	SR.ECB = 000047
BYTE4 = 000004	DH.NXT 000006	013 FN.FSA = 000000	011 F.RTYP = 000000	SR.ECH = 000046
BYTE5 = 000005	DH.ROT 000002	013 FN.FSB = 000002	011 F.SEON = 000100	SR.ECL = 000050
BYTE6 = 000006	DH.SIZ 000010	013 FN.FSC = 000004	011 F.SPIV = 000072	SR.FIB = 000012
BYTE7 = 000007	FA.APD = 000100	FN.LGO = 000034	011 F.SPUN = 000074	SR.GRC = 000100
BYTE8 = 000010	FA.CRE = 000010	FN.LGU = 000036	011 F.STBK = 000036	SR.GPS = 000072
BYTE9 = 000011	FA.DLK = 001000	FN.MFO = 000024	011 F.UNIT = 000136	SP.LEN = 000122
BYTVAL = 000012	FA.ENB = 100000	FN.NHR = 000010	011 F.UPRD = 000020	SR.LTN = 000066
B.BSTA = 000054	010 FA.EXC = 002000	FN.NMB = 000044	011 F.VDN = 000054	SR.LIP = 000062
B.CNTX = 000046	010 FA.EXT = 000004	FN.QLS = 000006	011 F.VBSZ = 000060	SR.MON = 000006
B.COUP = 000060	010 FA.NSP = 000100	FN.DRY = 000020	011 GETPE = *****	SR.NDC = 000042
B.FEMA = 000132	010 FA.POS = 010000	FN.SFO = 000030	011 JOSTAT = 000140R	SR.NDS = 000036
B.FEMC = 000142	010 FA.PD = 000001	FN.SF1 = 000032	011 M = 000062	SR.NIN = 000030
B.FEMC = 000152	010 FA.PWD = 004000	FN.SHD = 000042	011 MSCHED = 000320R	SR.NIP = 000022
B.FFSA = 000202	010 FA.SEQ = 040000	FO.APD = 000106	N = 000002	SR.SIB = 000032
B.FFSB = 000212	010 FA.SHR = 000040	FO.MFY = 000002	NB.DEV = 000200	SR.SRF = 000002
B.FFSC = 000222	010 FA.TMP = 000020	FO.RD = 000001	NB.DIR = 000100	SR.SUN = 000000
B.FMHR = 000172	010 FA.WCK = 020000	FO.UPD = 000006	NB.NHM = 000004	SR.TWS = 000056
B.FOLS = 000162	010 FA.WRT = 000002	FO.WRT = 000016	NB.SD1 = 000400	SR.WSL = 000052
B.FSA7 = 000100	010 FNB = 000000R	F.ACTL = 000076	NB.SD2 = 001000	SR.YR = 000004
B.FSB2 = 000102	010 FD.ALK = 000010	F.ALDC = 000340	NB.SHM = 000040	SR.IIN = 000024
B.FSC7 = 000104	010 FD.CCL = 000002	F.BRFS = 000062	NB.STP = 000020	SR.IIP = 000016
B.HBLK = 000106	010 FD.COH = 020000	F.BTB = 000070	NB.SVR = 000010	SS.FID = 000002
B.HPDL = 000114	010 FD.CP = 000002	F.BGBC = 000057	NB.TYP = 000002	SS.FNB = 000010
B.HRLP = 000126	010 FD.DIR = 000010	F.BYDN = 000026	NB.VER = 000001	SS.FVR = 000006
B.HRLP = 000128	010 FD.FID = 000000	003 F.BKDS = 000020	N.BFAC = 000004	SS.LEN = 000012
B.HRLU = 000124	010 FD.FNB = 000006	003 F.BKEF = 000050	N.BHGH = 000006	SS.STT = 000000
B.NMBR = 000052	010 FD.FTN = 000001	F.BP1 = 000051	N.BTCH = 000004	STENT = *****
B.NORY = 000232	010 FD.FVR = 000004	003 F.BKST = 000024	N.BUFB = 000000	ST.ASZ = 000070
B.QLSZ = 000106	010 FD.F11 = 040000	F.BKVB = 000064	N.BUFW = 002000	ST.BSZ = 000034

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

ST.BTC- 000000	006 SU.SRC- 000002	UN.HTP- 000004	012 WORD6 - 000014	XHLIER- 000002
ST.CS2- 000030	006 SU.SRR- 000005	UN.HXT- 000005	012 WORD7 - 000016	XHOTSF- 000010
ST.HRL- 000010	006 SU.XPD- 000003	UN.POT- 000002	012 WORD8 - 000020	XMSCHE- 000000
ST.LEN- 000044	006 S.AFH- 000020	UN.SIZ- 000010	012 WORD9 - 000022	XOTS - 000003
ST.QRY- 000002	006 S.FAT1- 000015	UN.SRC- 000000	012 WORDVAL- 000024	XOT0 - 000001
ST.QSZ- 000034	006 S.FDB- 000010	UN.TYP- 000001	012 XBATLH- 000013	XSHLO0- 000005
ST.SCH- 000040	006 S.I.NAM- 000005	XOPD0 - 000000	XDBL00- 000004	...INIT- 000000 G
ST.UHL- 000004	006 S.FNB- 000036	WORD1 - 000002	XDBPRO- 000012	...PSH0- 000000 G
ST.XLT- 000014	006 S.FNBW- 000017	WORD2 - 000004	XDNCTH- 000006	...GB- 000000
SU.DBU- 000004	S.FNTY- 000004	WORD3 - 000006	XFOCHR- 000007	...PC1- 000000R
SU.DON- 000006	S.FTYP- 000002	WORD4 - 000010	XGTSFE- 000014	...PC2- 000010R
SU.ID- 000000	S.HRL- 000240	WORDS - 000012	XHITS- 000011	...TP- 000020
SU.LOP- 000001	S.NFEN- 000020			
ADS- 000000	000			
000430	001			
SRCOFF- 000122	002			
FDSCOF- 000010	003			
SUSOFF- 000012	004			
DHROFF- 000012	005			
STTOFF- 000044	006			
QSPLOF- 000014	007			
BSTOFF- 000772	010			
FNOFFS- 000044	011			
WNODOF- 000010	012			
DNODOF- 000010	013			
##FSP1 000000	014			
ERRORS DELETED: 0				

VIRTUAL MEMORY USED: 4938 WORDS (20 PAGES)
 DYNAMIC MEMORY: 5972 WORDS (22 PAGES)
 ELAPSED TIME: 00:00:27
 MSCHED-ARCHD-SP-120.1JP.M.MSCHED-

10-	2.	STATE TRANSITION TABLE PROCESSING.
11-	35	NEXT STATE TRANSITION ROUTINE.
12-	179	STATE TABLE MACROS.
14-	2.	STATE TRANSITION TABLES.
15-	223	MDBU STATES.
16-	254	BATCH FAILURE PATHS.
18-	2.	DECISION ROUTINES.
20-	2.	CONDITION MATCH ROUTINES.
21-	411	MDBU CONDITION MATCH ROUTINES.
22-	451	ERROR PATH CONDITION ROUTINES.
24-	2.	STATE TABLE SUPPORT ROUTINES.

```
1 .TITLE= STT-
2 .SBTTL= STATE TRANSITION TABLE PROCESSING-
3
4
5 .MCALL= CLEF$,WTSE$.
6 .MCALL= CMKT$,MRKT$,EXIT$.
7 .MCALL= SETF$,ASTX$.
8 .MCALL= SDAT$,RSUM$,RQST$.
9 .MCALL= ALTP$,GTIM$,QIOW$.
10 .MCALL= FDATA$,DFNB$,WRITE$,WAIT$,CLOSE$.
11 .MCALL= FDOF$,FCSBT$.
12
13 .GLOBL= PUTFRE,PUTOUT,SEZLOK,RLSLAK.
14 .GLOBL= GETFRE,GETOUD,GETSSQ,PUTSSQ.
15 .GLOBL= BSTPTR,SUINDX,SUJST.
16 .GLOBL= BLDHFL,BLDEFL,.DLFNB.
17 .GLOBL= SYSFLG.
18 .GLOBL= CHSTAT,$DDIV,SRECP.
19
20
21 .FDOF$.
22 .FCSBT$.
23
24
25
26
27
28
29
30
31
32
33
```

000000
000000

177777
000000
000004
000006

DN=-1 :DECISION NODE INDICATOR
UN=0 :WAIT NODE INDICATOR
TRCLUN=4 :TRACE OUTPUT
COLUN=6 :CONSOLE OUTPUT


```

35 .SBTTL: NEXT STATE TRANSITION ROUTINE.
36
37 : STATE TABLE TRANSITION ROUTINE.
38
39 : ENTRY FROM SCHEDULER ROOT TASK - R5 = BST ADDRESS
40
41 000000 012765 000452 000046 STTENT: MOV. *TOPNOD, B.CNTX(R5) : START AT TOP NODE.
42
43
44 : GET NEXT STATE.
45 NEXTST:
46 TST. @B.CNTX(R5) : BRANCH IF NO.
47 BEQ. NOTIME. : TIME-OUT REQUIRED
48 HRRKT$S. @B.CNTX(R5), #2, *TIMAST. : TIME-OUT.
49
50 NOTIME: TST. B.SSQ-2(P5) : BRANCH IF HAVE SSQ ENTRY.
51 BNE. DATSSQ.
52
53 WAITSSQ: MOV. B.SSQ(R5), R0 : WAIT FOR NEW SSQ ENTRY OR.
54 WTSE$S. R0 : TIME-OUT.
55 CLEF$S. P0
56 000072 032765 100000 000044 BIT. #BIT15, B.STAT(R5) : BRANCH IF NOT T/O.
57 000100 001757 BEQ. NOTIME.
58
59 : GOT WAIT NODE TIMEOUT.
60 MOV. B.CNTX(P5), R4 : STATE TABLE START FOR NODE.
61 ADD. #2, R4
62 000112 005764 000000 1$: TST. UN, SRC(R4) : FIND T/O ENTRY.
63 000116 100403 BMI. Z$.
64 000120 062704 000010 ADD. #UN, SIZ, R4
65 000124 000772 BR. 1$.
66
67 TIMEOUT ENTRY.
68 Z$: MOV. UN, NXT(R4), B.CNTX(R5) : NEXT NODE
69
70 : CALL TIMEOUT ROUTINE (NO PACKET)
71
72 : R5 = BST ADDRESS.
73
74 MOV. R4, - (SP)
75 000134 010446 CALL. @UN, ROT(R4) : CALL ROUTINE.
76 000136 MOV. (SP)+, R4
77 000142 012604
78
79 : CALL TRACE. : TRACE TRANSITION.
80
81 : BR TSTDND. : SEE ABOUT NEXT NODE
82
83 : SOMETHING IN SSQ.
84
85 DATSSQ: MOV. R5, R3 : ADDRESS OF SSQ.
86 ADD. #B.SSQ, P3 : HEAD CELL.
87 000154 062703 000004 CALL. SEZLOK. : SIZE QUEUE.
88 000164 016504 000046 MOV. B.CNTX(P5), P4 : STATE TABLE START FOR -
89 000170 062704 000002 ADD. #2, R4 : CURRENT NODE
90
91 : R5 = BST ADDRESS.
92 : R4 = STATE TABLE ENTRY ADDRESS.
93 : R3 = SSQ HEAD CELL ADDRESS.

```

NEXT STATE TRANSITION ROUTINE

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

92:
93 000174 005764 000000  NXTENT: TST:  WN, SRC(R4)  :CONTINUE IF NOT-
94 000200 100003          BPL: 1#  :END OF NODE-
95 000202          CALL: RLSLOK: :RELEASE QUEUE-
96 000206 000717          BR: WAITSO: :WAIT FOR SSQ ENTRY-
97
98 000210 016501 000002  1#: MOV: B, SSQ+2(R5), R1  :COUNT OF SSQ ENTRIES-
99 000214 011302  2#: MOV: (R3), R2  :NEXT SSQ PACKET-
100 000216 026264 000002 000000 CMP: 2(R2), WN, SRC(R4) :BRANCH IF -
101 000224 001406          BEQ: SSQMAT: :COMMAND MATCH-
102 000226 010203          MOV: R2, R3  :SSQ PACKET ADDRESS-
103 000230 077107          SOB: R1, 2#  :LOOP THROUGH SSQ ENTRIES-
104
105 000232 011303          :ALL SSQ ENTRIES PROCESSED - NO MATCH-
106 000234 062704 000010          MOV: (R3), R3  :R3 POINTS TO HEAD CELL AGAIN-
107 000240 000755          ADD: #WN, S12, R4 :NEXT NODE ENTRY ADDRESS-
108          BR: NXTENT: :CHECK NEXT NODE ENTRY BY SSQ-
109
110 000242 016465 000006 000046 : FOUND A SSQ MATCH-
111 000250          SSQMAT: MOV: WN, NXT(R4), B, CNTX(R5) :NEXT NODE
112 000256 042765 100000 000044 CMKTS: :CANCEL TIME OUT-
113          BIC: #BIT15, B, STAT(R5)
114 000264 011213          : DEQUEUE PACKET-
115 000266 026502 000006          MOV: (R2), (R3)  :LINK AROUND REMOVED PACKET-
116 000272 001002          CMP: B, SSQ+2(R5), R2 :BRANCH IF NOT REMOVING-
117 000274 010365 000006          BNE: 1#  :BOTTOM ENTRY OF SSQ-
118 000300 005365 000002          MOV: R3, B, SSQ+2(R5) :NEW BOTTOM ENTRY-
119 000304 010503          1#: DEC: B, SSQ+2(R5) :ONE LESS ENTRY-
120 000306 062703 000004          MOV: R5, R3  :GET HEAD CELL ADDRESS-
121 000312          ADD: #B, SSQ, R3
122          CALL: PLSLOK: :RELEASE QUEUE-
123
124          :
125          : CALL WAIT NODE CONDIT ON ROUTINE-
126          : R2=SSQ PACKET ADDRESS-
127          : R5=BST ADDRESS-
128
129 000316 010446          MOV: R4, -(SP)  :SAVE R4
130 000320 012604          CALL: @WN, ROT, R4) :MATCH ROUTINE-
131          MOV: (SP)+, R4  :RESTORE R4
132
133          :
134          CALL: TRACE: :TRACE THIS NODE-
135
136 000332 026427 000004 177777 : CHECK TYPE OF NEXT NODE-
137 000340 001413          :
138          TSTDND: CMP: WN, NTP(P4), #DN :BRANCH IF DECISION NODE-
139          BEQ: DESCHD:
140
141 000342 032765 100000 000044 : GOING TO WAIT NODE - RELEASE PACKET (IF NOT A TIMEOUT)
142 000350 001404          BIT: #BIT15, B, STAT(R5) :NOT A TIME OUT PATH
143 000352 042765 100000 000044          BEQ: 1#
144 000360 000612          BIC: #BIT15, B, STAT(P5) :CLEAR TIMEOUT-
145 000366 000607          BR: NEXTST:
146          1#: CALL: PUTFRE: :RETURN PACKET-
147          BR: NEXTST: :CHECK NEXT NODE AGAINST SSQ-
148
149          :
150          : A DECISION NODE IS NEXT - CHECK DECISION ROUTINE

```

```

149
150 000370 016504 000046      : DESCND: MOV.      B,CNTX(R5),R4      : START OF DECISION NODE
151
152 000374 005764 000000      1$:   TST.      DN,DCK(R4)      : END OF NODE?
153 000400 100002              :   BPL.      2$              : NO
154 000402              :   CALL.     CRASH.          : YES - CAN'T HAPPEN
155 000406 010446              2$:   MOV.      R4, -(SP)          : SAVE R4
156 000410              :   CALL.     @DN,DCK(R4)     : CALL DECISION ROUTINE
157 000414 012604              :   MOV.      (SP)+,R4        : RESTORE R4
158 000416 103403              :   BCS.      3$              : MATCHED
159 000420 062704 000010      :   ADD.      @DN,SIZ,R4      : NO MATCH - TRY NEXT ENTRY
160 000424 000763              :   BR.       1$
161
162 000426 016465 000006 000046 3$:   MOV.      DN,NXT(P4),B,CNTX(R5) : MATCHED - SET NEXT NODE
163
164
165      : CALL DECISION SATISFIED ROUTINE
166      : R2=SSO PACKET ADDRESS (UNLESS FOLLOWING A TIMEOUT)
167      : R5=BST ADDRESS
168
169 000434 010446              :   MOV.      R4, -(SP)          : SAVE R4
170 000436              :   CALL.     @DN,ROT(R4)      : DECISION SATISFIED ROUTINE
171 000442 012604              :   MOV.      (SP)+,R4        : RESTORE R4
172
173 000444              :   CALL.     TRACE.          : TRACE THIS NODE
174
175 000450 000730              :   BR.       TSTDND.         : CHECK NEXT NODE TYPE
176
177

```

```

179 .SBTTL STATE TABLE MACROS
180 ;
181 ;
182 ; STATE TRANSITION TABLE MACROS
183 ;
184 ; UNODE: GENERATE A WAIT NODE ENTRY
185 ;
186 ; PARS: COMMAND SOURCE, COMMAND TYPE, ROUTINE ADDRESS, DN OR UN,
187 ; NEXT STATE ADDRESS
188 ;
189 .MACRO UNODE A,B,C,D,E
190 .BYTE A ;COMMAND SOURCE
191 .BYTE B ;COMMAND TYPE
192 .WORD C ;ROUTINE ADDRESS
193 .WORD D ;NEXT NODE TYPE
194 .WORD E ;NEXT STATE
195 .ENDM UNODE
196 ;
197 ;
198 ; TIMEOUT: GENERATE A TIMEOUT ENTRY FOR WAIT NODE
199 ;
200 ; PARS: TIMEOUT-SATISFIED ROUTINE, DN OR UN, NEXT STATE ADDRESS
201 ;
202 .MACRO TIMEOUT A,B,C
203 .WORD -1 ;TIMEOUT INDICATOR
204 .WORD A ;ROUTINE ADDRESS
205 .WORD B ;NEXT NODE TYPE
206 .WORD C ;NEXT STATE
207 .ENDM TIMEOUT
208 ;
209 ;
210 ; TIME: GENERATE TIMEOUT VALUE FOR A WAIT NODE
211 ;
212 ; PARS: WAIT TIME IN SECONDS (0 MEANS NO TIMEOUT)
213 ;
214 .MACRO TIME A
215 .WORD A
216 .ENDM TIME
217 ;
218 ;
219 ;
220 ; DNODE: GENERATE A DECISION NODE ENTRY
221 ;
222 ; PARS: DECISION CHECK ROUTINE ADDRESS, DECISION-SATISFIED ROUTINE
223 ; ADDRESS, DN OR UN, NEXT STATE ADDRESS
224 ;
225 .MACRO DNODE A,B,C,D
226 .WORD A ;DECISION CHECK ROUTINE
227 .WORD B ;ROUTINE ADDRESS
228 .WORD C ;NEXT NODE TYPE
229 .WORD D ;NEXT STATE
230 .ENDM DNODE
231 ;
232 ;
233 ; NTERM - TERMINATE A DECISION NODE
234 ;
235 .MACRO NTERM
236 .WORD -1

```

236
237
238

ENDM: NTERM:
:
:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

.SBTTL: STATE TRANSITION TABLES.

; ENTRY FROM SCHEDULER ROOT TASK.

; WAITING FOR A QUO ENTRY OR AN EXTERNAL COMMAND.

TOPNOD:

TIME: 5*60.

UNODE: XMSCHED,0,STTINT,UN,WTSSRC.

; INIT SAYS TO INITIALIZE.

UNODE: XBATCH,1,CNOP,DN,BCHEMF.

; CLOSE COMMAND FROM CONSOLE.

UNODE: XMSCHED,4,TULQUO,DN,QUONE.

; QUO ENTRY MADE.

UNODE: XMSCHED,1,SSUXDN,DN,BCHEMF.

; SUXX DONE.

UNODE: XMSCHED,2,SPRDON,UN,TOPNOD.

; SEARCH DONE.

TIMOUT: CNOP,DN,SHRTCL.

; 5 MIN T/O - SEE ABOUT SHORT CYCLE.

; SEE IF WE CAN DO A SHORT CYCLE.

SHRTCL:

DNODE: CBEMPT,TULQUO,DN,QUONE.

; BATCH NOT EMPTY - GO TO QUO.

DNODE: SGISIN,STRTSC,DN,GOCDU.

; SEARCH GO IS IN - DO SHORT CYCLE.

DNODE: TRUE,TULQUO,DN,QUONE.

; ELSE GO TO QUO.

NTERM:

; SEE IF THERE IS ANYTHING IN THE QUO.

QUONE:

DNODE: QUONEP,CNOP,UN,TOPNOD.

; QUO EMPTY NOW.

DNODE: CMDBOU,CNOP,DN,SHDBUR.

; GOT MDBU REQUEST.

DNODE: TRUE,PPBUHL,UN,UPRBR.

; GOT QUO - PROBE UHL SIZE.

NTERM:

; MDBU REQUEST IN - SEE IF BATCH EMPTY.

SHDBUR:

DNODE: CBESTT,STMDBU,DN,CSRGMD.

; BATCH EMPTY - DO MDBU.

DNODE: TRUE,RORIDR,UN,OTOTCL.

; NOT EMPTY - REQUEUE MDBU, CLOSE.

NTERM:

; CONSOLE BATCH CLOSE COMMAND IN -

; SUXX DONE IN - CLOSE BATCH IF NOT EMPTY.

BCHEMF:

DNODE: CBESTT,TULQUO,DN,QUONE.

; BATCH EMPTY - GO TO QUO.

DNODE: TRUE,BATCHCL,UN,OTOTCL.

; BATCH NOT EMPTY.

NTERM:

; QUO ENTRY IN - SEE IF HLMERG HAS ROOM FOR UHL.

UPRBR:

TIME: 15.

UNODE: XMSCHED,4,CNOP,UN,UPRBR.

; PURGE THESE SSD ENTRIES.

UNODE: XHLMERG,2,MGRORY,UN,OTORSP.

; UHL WILL FIT.

UNODE: XHLMERG,3,CNOP,DN,RMBIGQ.

; UHL WILL NOT FIT.

TIMOUT: PRMSG,UN,UPRBR.

NTERM:

; GAVE QUERY TO OT0 TO MERGE.

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

NTERM:

```

59 000726 .QT0RSP:
60 000726 TIME: 15.
61 000730 UNODE: XDT0.0.MRGUHL,WN,HLMBOR. ;QUERY MERGED - BATCH OPEN.
62 000740 UNODE: XDT0.1.CHOP,DN,RMBIG0. ;QUERY NOT MERGED (SIZE) - BATCH OPEN.
63 000750 UNODE: XDT0.3.MRGUHL,WN,HLMBOR. ;QUERY MERGED - BATCH CLOSE.
64 000760 UNODE: XDT0.4.GP1DOR,DN,OUQENE. ;QUERY NOT MERGED (PARSE) - BATCH OPEN.
65 000770 UNODE: XDT0.5.DLRORM,WN,QTABTR. ;BATCH CORRUPTED.
66 001000 TIMEOUT: PRTHSG,WN,QT0RSP.
67
68
69
70 001010 ; GAVE UHL TO HLMERG; QT0 HAD NOT CLOSED
71 001010
72 001012 HLMERG:
73 TIME: 15.
74 001022 UNODE: XHLMERG.0.CNOP,DN,OBODES. ;UHL MERGED - SEE ABOUT OTHER.
75 ; BATCH CLOSURE CONDITIONS.
76
77 TIMEOUT: PRTHSG,WN,HLMBOR.
78
79 ; QUERY AND UHL MERGED; NO BATCH CLOSURE FROM QT0 OR HLMERG -
80 ; SEE ABOUT OTHER BATCH CLOSURE CONDITIONS.
81
82 OBODES:
83 DNODE: CMXORY,BTCHCL,WN,QT0TCL. ;MAX QUERIES IN BATCH.
84 DNODE: CSXDIN,BTCHCL,WN,QT0TCL. ;SXX IN WHILE BATCH WAS EMPTY.
85 DNODE: TRUE,TUOUO,DN,OUQENE. ;NO CLOSE - TRY NEXT QUD ENTRY
86 HTERM:
87
88 ; QT0 TOLD TO CLOSE DUE TO EXTERNAL CLOSE DECISION
89
90 QT0TCL:
91 TIME: 15.
92 UNODE: XDT0.2.HLMCL,WN,HLTCLS. ;QT0 CLOSED, NOW CLOSE UHL.
93 UNODE: XDT0.6.REPRCB,WN,QTABCR. ;BATCH CORRUPTED.
94 TIMEOUT: PRTHSG,WN,QT0TCL.
95
96 ; QT0 ACCEPTED QUERY AND CLOSED BATCH - GAVE UHL TO HLMERG.
97
98 HLMERG:
99 TIME: 15.
100 UNODE: XHLMERG.0.HLMCL,WN,HLTCLS. ;TELL HLMERG TO CLOSE.
101 TIMEOUT: PRTHSG,WN,HLMBOR.
102
103 ; HLMERG TOLD TO CLOSE.
104
105 HLTCLS:
106 TIME: 15.
107 UNODE: XHLMERG.1.GOTQTS,WN,QT0RSP. ;UHL CLOSED - NOW XLATE.
108 TIMEOUT: PRTHSG,WN,HLTCLS.
109
110 ; TRANSLATOR HAS BEEN RUN.
111
112 QT0RSP:
113 TIME: 90.
114 UNODE: XQTS.0.GTCSDS,DN,ONXTBT. ;XLATE SUCCESS.
115 UNODE: XQTS.1.REPRCB,WN,QTABCR. ;BATCH OVERFLOW
116 TIMEOUT: PRTHSG,WN,QT0RSP.
117
118 ; QTS HAS TRANSLATED - SEE IF NEXT BATCH CAN BE OPENED.

```

```

116
117 001214
118 001214
119 001224
120 001234
121
122
123
124 001236
125 001236
126 001246
127 001256
128
129
130
131 001260
132 001260
133 001262
134 001272
135
136
137
138
139 001302
140 001302
141 001304
142 001314
143
144
145
146 001324
147 001324
148 001334
149 001344
150
151
152
153 001346
154 001346
155 001350
156 001360
157
158
159
160 001370
161 001370
162 001400
163 001410
164
165
166
167 001412
168 001412
169 001414
170 001424
171
172

```

```

ONXTBT:
DNODE:  NXTBIN,RUNXTS,DN,CSGOIN:      ;NEXT BATCH: INACTIVE
DNODE:  TRUE,SETACT,DN,CSGOIN:      ;NEXT BATCH: STILL ACTIVE
NTERM:
;
; THIS BATCH CLOSED - SEE IF SEARCH-GO ALREADY IN:
;
CSGOIN:
DNODE:  SGISIN,GSMODE,WN,CTLODE:      ;SEARCH-GO IN - SEARCH
DNODE:  TRUE,CNOP,WN,WAITSG:      ;NOT IN - WAIT
NTERM:
;
; WAIT FOR PREVIOUS BATCH SEARCH COMPLETION
;
WAITSG:
TIME:  5*60.
UNODE:  XMSCHED,2,GSMODE,WN,CTLODE:      ;GOT SEARCH-GO
TIMOUT:  PRTHSG,WN,WAITSG
;
; SEARCH UNIT LOAD STARTED FOR ALL SEARCH UNITS - WAIT
; FOR SULOAD TO REPORT IN FOR ALL SU
;
CTLODE:
TIME:  60.
UNODE:  XSULOAD,0,SSULOD,DN,ALODED:      ;ONE SULOAD REPORTING SU LOADED
TIMOUT:  PRTHSG,WN,CTLODE
;
; SEE IF ALL SEARCH UNITS LOADED
;
ALODED:
DNODE:  CASULD,CNOP,WN,WTSXPD:      ;ALL SEARCH UNITS LOADED
DNODE:  TRUE,CNOP,WN,CTLODE:      ;SOME NOT LOADED - WAIT
NTERM:
;
; ALL SEARCH UNITS LOADED - WAIT FOR SUXX DONE
;
WTSXPD:
TIME:  5*60.
UNODE:  XDMCIN,0,SPDPIN,DN,AXPDIN:      ;ONE SUXX DONE IN
TIMOUT:  PRTHSG,WN,WTSXPD
;
; SEE IF ALL SUXX DONE ARE IN
;
AXPDIN:
DNODE:  CAXPDI,CLSNXB,WN,WTSFOS:      ;ALL IN - CLOSE NEXT BATCH
DNODE:  TRUE,CNOP,WN,WTSXPD:      ;SOME NOT IN YET
NTERM:
;
; ALL SEARCH UNITS SUXX DONE - WAIT FOR FOS
;
WTSFOS:
TIME:  5*60.
UNODE:  XDMCIN,1,SFOSIN,DN,AFOSIN:      ;ONE FOS REPORTED IN
TIMOUT:  PRTHSG,WN,WTSFOS
;
; SEE IF ALL FOS IN

```



```

173
174 001434
175 001434
176 001444
177 001454
178
179
180
181 001456
182 001456
183 001460
184 001470
185
186
187
188 001500
189 001500
190 001510
191
192
193
194 001512
195 001512
196 001514
197 001524
198 001534
199
200
201
202 001544
203 001544
204 001554
205 001564
206
207
208
209 001566
210 001566
211 001570
212 001600
213
214
215
216 001610
217 001610
218 001620
219 001630
220
221

```

```

AFOSIN:
DNODE: CAFOSI,MRCFOS,UN,FOSMRS.      ;ALL-IN-- MERGE-FOS-
DNODE: TRUE,CNOP,UN,WTSPFOS.         ;SOME-FOS-NOT-YET-IN
NTERM:
:
: WAIT-FOR-FOSMRG-TO-COMPLETE-
:
FOSMRS:
TIME: 30.
UNODE: XFOSMRG,1,DELCTB,DN,GOCDBU.   ;FOS-MERGED-- DELETE TABLES-- CDBU-
TIMOUT: PRMSG,UN,FOSMRS.
:
: IN-CDBU-- RUN-DBPROC-
:
GOCDBU:
DNODE: TRUE,DBPCDB,UN,DBCRSP.         ;RUN-DBPROC-
NTERM:
:
: CDBU-STARTED-- GET 'NO-WORK' FROM-DBPROC, OR 'DATA-BASE-END' FROM-DMCIN-
:
DBCRSP:
TIME: 3*60.
UNODE: XDBPROC,0,GSRECR,UN,WTSSPC.   ;NO-UPDATES-- GET-STATUS-RECORDS-
UNODE: XDMCIN,2,SCDOUD,DN,ACDBUD.   ;ONE-SU-DONE-WITH-CDBU-
TIMOUT: PRMSG,UN,DBCRSP
:
: ONE-SU-REPORTED-CDBU-DONE-- SEE-IF-ALL-DONE-
:
ACDBUD:
DNODE: CACDBU,GSRECR,UN,WTSSRC.      ;ALL-DONE-- GET-STATUS-RECORDS
DNODE: TRUE,CNOP,UN,DBCRSP.         ;ALL-NOT-DONE-- WAIT
NTERM:
:
: STATUS-RECORDS-REQUESTED-- WAIT-FOR-RECORDS-TO-COME-IN-
:
WTSSRC:
TIME: 30.
UNODE: XDMCIN,3,SSPC,1,DN,ASRCIN.    ;ONE-STATUS-RECORD-IN-
TIMOUT: PRMSG,UN,WTSSPC
:
: SEE-IF-ALL-STATUS-RECORDS-ARE-IN-
:
ASRCIN:
DNODE: CASRCI,WRAPUP,0,0
DNODE: TRUE,CNOP,UN,WTSSRC.         ;ALL-IN-- WRAP-UP-
NTERM:                             ;SOME-NOT-IN-YET-
:
:

```

```

223 .SBTTL MDBU STATES.
224 ;
225 ; MDBU CAN BE STARTED - SEE IF SEARCH GO ALREADY IN.
226 ;
227 001632 CSRGMD:
228 001632 DNODE: SCISIN,MDBUGO,WN,DBMRSP: ;SEARCH-GO ALREADY IN - INIT MDBU.
229 001642 DNODE: TRUE,CNOP,WN,USPCGO: ;WAIT FOR SEARCH-GO
230 001652 ITERM:
231 ;
232 ; MDBU CAN BE STARTED - WAIT FOR PREVIOUS BATCHES TO RUN DOWN.
233 ;
234 001654 USRCGO:
235 001654 TIME: 5*60,
236 001656 WNODE: XMSCHED,2,MDBUGO,WN,DBMRSP: ;GOT SEARCH-GO - INIT MDBU.
237 001656 TIMEOUT: PRTHSG,WN,USPCGO:
238 ;
239 ; MDBU IN PROGRESS - WAIT FOR 'DATA BASE END' FROM DMCIN.
240 ;
241 001676 DBMRSP:
242 001676 TIME: 0
243 001700 WNODE: XDMCIN,2,SCDBUD,WN,AMDBUD: ;GOT A SU TERMINATION.
244 001710 TIMEOUT: CNOP,WN,DBMRSP:
245 ;
246 ; ONE SU REPORTED MDBU DONE - SEE IF ALL DONE.
247 ;
248 001720 AMDBUD:
249 001720 DNODE: CACDBU,MDBUDN,WN,ACDBUD: ;ALL SU DONE WITH MDBU - GET SEC.
250 001730 DNODE: TRUE,CNOP,WN,DBMRSP: ;SOME SU NOT DONE - WAIT.
251 001740 ITERM:
252 ;

```

.SBTTL: BATCH FAILURE PATHS.

```

:
: ***** QTO REJECTED: QUERY AS TOO BIG.
:
: QUERY TOO BIG TO FIT IN BATCH - SEE IF ONLY QUERY.
:
RMBIGO:
DNODE: SINGLO,DLQAP,DN,OUQENE: ;DUMP SINGLE QUERY:- GO TO QOO
DNODE: TRUE,RQOTRM,UN,QTOCTCL: ;REQUEUE LAST QUERY:- TERM BATCH.
NTERM:
:
: ***** QTO COULDN'T MERGE QUERY - BATCH CORRUPTED
:
: DUMPED LAST QUERY: REQUEUED REST:- QTO TOLD TO ABORT.
:
QTABTR:
TIME: 15.
UNODE: XQTO,7,ABRTHL,UN,ABHLRS: ;QTO ABORTED:- ABORT HLMERG.
TIMOUT: PRMSG,UN,QTABTR:
:
: HLMERG TOLD TO ABORT.
:
ABHLRS:
TIME: 15.
UNODE: XHLMERG,4,TULOUD,DN,OUQENE: ;HLMERG ABORTED:- RESTART BATCH.
TIMOUT: PRMSG,UN,ABHLRS:
:
: ***** CORRUPTED BATCH DETECTED BY QTO ON TERMINATE OR
: BY QTS ON BATCH TRANSLATE.
:
: QTO TOLD TO ABORT.
:
QTABCR:
TIME: 15.
UNODE: XQTO,7,ABRTHL,UN,ABHLCR: ;QTO ABORTED:- NOW HLMERG.
TIMOUT: PRMSG,UN,QTABCR:
:
: HLMERG TOLD TO ABORT.
:
ABHLCR:
TIME: 15.
UNODE: XHLMERG,4,CNOP,DN,DUNTSQ: ;HLMERG ABORTED:- SINGLE Q LEFT?
TIMOUT: PRMSG,UN,ABHLCR:
:
: SEE IF DOWN TO LAST QUERY IN BATCH.
:
DUNTSQ:
DNODE: SINGLO,DLQAP,DN,OUQENE: ;DUMP QUERY:- CONTINUE EMPTY BATCH.
DNODE: TRUE,RQPPR,UN,RPROTQ: ;REQUEUE LAST:- REPROCESS BATCH.
NTERM:
:
: QUERY GIVEN TO QTO TO MERGE.
:
RPROTQ:
TIME: 15.
UNODE: XQTO,8,GIVUHL,UN,RPRHLM: ;QTO MERGED:- MERGE UHL.
TIMOUT: PRMSG,UN,RPROTQ

```

BATCH FAILURE PATHS

311
312
313
314 002140
315 002140
316 002142
317
318 002152
319
320
321
322 002162
323 002162
324 002172
325 002202
326

: UHL GIVEN TO HLMEG TO MERGE

RPRHLM:

TIME: 15.

UNODE: XHLMERG,B,CNOP,DN,SALORP

: UHL MERGED - SEE IF ENTIRE
: BATCH REPROCESSED

TIMOUT: PRMSG,UN,PPHLM

: SEE IF ENTIRE BATCH REPROCESSED

SALORP:

DNODE: TAOPPR,BTCHCL,UN,QTBTCL

DNODE: TRUE,CONTRP,UN,PPROT0

HITEP1

: ALL REPROCESSED - TERM BATCH

: ENTIRE BATCH NOT REPROCESSED - CONT

```

1      ;SBTTL - DECISION ROUTINES
2
3      ; CALLED IN A DECISION NODE
4
5      ; OUTPUT: CARRY SET - DECISION SATISFIED
6
7      ; CARRY CLEAR - DECISION NOT SATISFIED
8
9      002204 000261      TRUE: SEC
10     002206              RTH
11     002210 000241      FALSE: CLC
12     002212              RTH
13
14     ;
15     ; TEST IF QUO EMPTY
16     QUOEMP: TST B,QUO(P5)      ; TEST IF QUO ENTRY WAS UNLOADED
17     BEQ TRUE                ; EMPTY
18     BR FALSE                ; GOT QUO ENTRY
19
20     ;
21     ; TEST IF QUO ENTRY IS MDBU REQUEST
22     CMDBOU: TST B,CQUO(P5)     ; TEST UNLOADED QUO ENTRY
23     BHI TRUE
24     BR FALSE
25
26     ;
27     ; CHECK IF MAX ENTRIES IN BATCH
28     CMXDRY: CMP B,NQRY(P5),#N.QURY
29     BHS TRUE
30     BR FALSE
31
32     ;
33     ; CHECK IF SUXX DONE CAME IN WHILE BATCH WAS EMPTY
34     CSXQDIN: BIT #BIT0,B,STAT(P5)
35     BNE TRUE
36     BR FALSE
37
38     ;
39     ; SEE IF BATCH EMPTY
40     CBESTT: TST B,NQRY(P5)
41     BEQ TRUE                ; BATCH EMPTY
42     BR FALSE
43
44     ;
45     ; SEE IF BATCH NOT EMPTY
46     CBEMPT: TST B,NQRY(P5)
47     BNE TRUE                ; BATCH NOT EMPTY
48     BR FALSE
49
50     ;
51     ; NOW IN CLOSED STATE - SEE IF NEXT BATCH IS ACTIVE
52     HXTBIN: MOVB B,NMBR(P5),R0      ; CURRENT BATCH NUMBER
53     ADD #2,R0                ; NEXT BATCH NUMBER
54     CNP R0,#N,BHGH          ; ZERO IF BATCH
55     BLOS 1$                 ; NUMBER WRAP AROUND
56     CLR R0
57     MOV BSTPTR(R0),R1        ; NEXT BATCH
58     CNPB #BS,INA,B,STTE(R1)      ; BRANCH IF
59     BNE FALSE                ; NOT INACTIVE

```

```

59 002334 000723          BR      TRUE
60
61
62
63 002336 032765 000002 000044  ; TEST IF WE HAVE ALREADY GOT A SEARCH GO FROM THE PREVIOUS BATCH.
64 002344 001317          SGISIN: BIT      *BIT1,B,STAT(R5)
65 002340 000720          BNE     TRUE
66
67
68
69 002350 012701 000001          ; SEE IF ALL SU LOADED.
70 002354 006301          CASHLD: MOV     *N,SUNT-1,R1          ;HIGH SU#
71 002356 016100 000000G      1$: ASL     R1          ;BRANCH IF SOME SU
72 002362 006201          MOV     SUINDX(R1),R0          ; STILL NOT LOADED.
73 002364 022760 000002 000000 ASR     R1
74 002372 001306          CMP     *SU,SRC,SS,STT(R0)
75 002374 005301          BNE     FALSE
76 002370 100366          DEC     R1          ;TRY ALL SU
77 002400 000701          BPL     1$          ;ALL LOADED.
78
79
80
81 002402 012701 000001          ; SEE IF ALL SUXX DONE ARE IN
82 002406 006301          CAXPDI: MOV     *N,SUNT-1,R1          ;HIGH SU#
83 002410 016100 000000G      1$: ASL     R1          ;BRANCH IF SOME SU
84 002414 006201          MOV     SUINDX(R1),R0          ; STILL NOT SENT SUXX DONE.
85 002416 022760 000003 000000 ASR     R1
86 002424 001271          CMP     *SU,XPD,SS,STT(R0)
87 002426 005301          BNE     FALSE
88 002430 100366          DEC     R1          ;TRY ALL SU
89 002432 000664          BPL     1$          ;ALL ARE IN.
90
91
92
93 002434 012701 000001          ; SEE IF ALL FOS ARE IN
94 002440 006301          CAFOSI: MOV     *N,SUNT-1,R1          ;HIGH SU#
95 002442 016100 000000G      1$: ASL     R1          ;SU ENTRY ADDRESS
96 002446 006201          MOV     SUINDX(R1),R0
97 002450 022760 000004 000000 ASR     R1
98 002456 001254          CMP     *SU,DBU,SS,STT(R0)
99 002460 005301          BNE     FALSE
100 002462 100366          DEC     R1          ;TRY ALL SU
101 002464 000647          BPL     1$          ;ALL SU DONE
102
103
104
105 002466 012701 000001          ; CHECK IF ALL SU ARE DONE WITH CDBU OR MDBU
106 002472 006301          CACDBU: MOV     *N,SUNT-1,R1          ;HIGH SU#
107 002474 016100 000000G      1$: ASL     R1          ;SU ENTRY ADDRESS
108 002500 006201          MOV     SUINDX(R1),R0
109 002502 022760 000005 000000 ASR     R1
110 002510 001237          CMP     *SU,SRR,SS,STT(R0)
111 002512 005301          BNE     FALSE
112 002514 100366          DEC     R1          ;TRY ALL SU
113 002516 000632          BPL     1$          ;ALL SU DONE
114
115

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

116
117 002520 012701 020001      : SEE IF ALL STATUS RECORDS ARE IN
CASPCI: MOV.    *H.SUNT-1,R1      :HIGH-SU*
118 002524 006301              1$:    R1      :BRANCH IF SOME-SU
119 002526 016100 000000G.      MOV.    SUINDX(R1),R0      : STILL NOT SENT-SREC
120 002532 006201              ASR.    R1
121 002534 022700 0000005 000000 CMP.    *SU,DON,SS,STT(R0)
122 002542 001222              BNE.    FALSE
123 002544 005301              DEC.    R1      :TRY-ALL-SU
124 002546 100366              BPL.    1$
125 002550 000615              BR.     TRUE      :ALL ARE IN
126
127
128      : SEE IF EXACTLY ONE QUERY IN BATCH
129 002552 022765 000001 000232 SINGLO: CMP.    *1,B,NORY(R5)      :ONE-QUERY
130 002560 001611              BEQ.    TRUE
131 002562 000612              BR.     FALSE
132
133
134      : SEE IF ALL QUERIES HAVE BEEN REPROCESSED FOR CORRUPTED BATCH
135 002564 016546 000232 TAORPR: MOV.    B,NORY(R5),-(SP)      :LAST-QUERY'S ID
136 002570 005316              DEC.    (SP)      : IN-BATCH
137 002572 022662 000006 CMP.    (SP)+,6(R2)      :COMPARE AGAINST CURRENT-QUEPY ID
138 002576 001602              BEQ.    TRUE
139 002600 000603              BR.     FALSE
140
141
    
```

```

2.      .SBTTL  CONDITION: MATCH ROUTINES
3.
4.      ; AT ALL TIMES: R5=BST ADDRESS
5.      ;
6.      ; R2=UNLOADED PACKET
7.
8.      ;
9.      ; INITIALIZE SCHEDULER ON FIRST BATCH
10 002602 112765 000004 000053 STTINT: MOVB  #B5,DBU,B,STTE(P5) ;BATCH STATUS
11 002610 005065 000054          CLR  B,BSTA(R5)
12
13 002614          CALL  RUNXTS          ;RUN NEXT SCHEDULER
14 002620          CALL  CLSNXB          ;CLOSE NEXT BATCH
15
16          CALL  HSTSRT          ;START QUERIES FROM HOST
17
18          CALL  GSRECR          ;GET THE STATUS RECORDS
19
20 002634          RTN
21
22
23      ; TRY TO UNLOAD QUO
24 002636 TULQUO: CALL  GETQUO          ;GET TOP QUO ENTRY
25 002642          RTN
26
27
28      ; SUXX DONE HAS COME IN
29 002644 052765 000001 000044 SSUXDN: BIS  #BIT0,B,STAT(R5) ;SET INDICATOR
30 002652          RTN
31
32
33      ; SEARCH GO CAME IN WHILE BATCH WAS EMPTY
34 002654 052765 000002 000044 SPRDN: BIS  #BIT1,B,STAT(R5) ;SET INDICATOR
35 002662          RTN
36
37
38      ; BUILD QUERY SPOOL FILE ENTRY - CALL HLMERG TO SEE IF UHL WILL FIT
39 002664 016500 000232 PRBUHL: MOV  B,NQRY(R5),R0 ;GET CURRENT # OF QUERIES
40 002670 005265 000232          INC  B,NQRY(R5) ;ONE MORE QUERY IN BST
41 002674 010001          MOV  R0,R1 ;SAVE IT
42 002676 000000          ADD  R0,R0 ;INDEX INTO EOID MAP
43 002700 000500          ADD  R5,R0
44 002702 016560 000064 000234          MOV  B,CQUO+4(R5),B,QMAP(R0) ;MOVE IN EOID
45
46          MUL  #Q,SIZE,P1 ;INDEX INTO SPOOL AREA
47 002710 070127 000014          ADD  R5,R1
48 002716 062701 000316          ADD  #B,QSPL,R1
49 002722 016521 000060          MOV  B,CQUO(R5),(R1)+ ;# QUERY BLOCKS
50 002726 016521 000062          MOV  B,CQUO+2(R5),(R1)+ ;# UHL BLOCKS
51 002732 016521 000066          MOV  B,CQUO+6(R5),(R1)+ ;FDSO
52 002736 016521 000070          MOV  B,CQUO+8(R5),(R1)+
53 002742 016521 000072          MOV  B,CQUO+10(R5),(R1)+
54 002746 005065 000056          CLR  B,CQUO(P5) ;MARK CURRENT QUO ENTRY UNLOADED
55
56 002752 112765 000002 000013          MOVB  #2,B,SNDP+1(R5) ;SEND PROBE COMMAND
57 002760 116565 000052 000014          MOVB  B,NMBR(R5),B,SNDP+2(R5) ; TO HLMERG
58 002766 016565 000232 000016          MOV  B,NQRY(R5),B,SNDP+4(R5)

```



```

59 002774 005365 000016 DEC. B,SNDP+4(R5) ;ZERO-ORGIN-QID-
60 003000 012700 000002 MOV. *%HLMERG,P0
61 003004 CALL. RUNTSK.
62 003010 RTN.
63 ;
64 ;
65 ; HLMERG-SAYS-UHL-WILL-FIT-- MERGE QUERY
66 003012 112765 000000 000013 MRGORY: MOV. *0,B,SNDP+1(R5) ;SEND-MERGE-QUERY.
67 003020 116565 000052 000014 MOV. B,NHBR(R5),B,SNDP+2(R5) ; COMMAND TO QT0
68 003026 016565 000232 000016 MOV. B,NORY(R5),B,SNDP+4(R5)
69 003034 005365 000016 DEC. B,SNDP+4(R5) ;ZERO-ORGIN-QID-
70 003040 012700 000001 MOV. *%QT0,P0
71 003044 CALL. RUNTSK.
72 003050 PSUMMS: P0 ;QT0 SUSPENDS-
73 003064 RTN.
74 ;
75 ;
76 ; QT0 MERGED-QUERY; BATCH-NOT-FULL-- MERGE-UHL.
77 003066 112765 000000 000013 MRGUHL: MOV. *0,B,SNDP+1(R5) ;MERGE-UHL-COMMAND-
78 003074 116565 000052 000014 MOV. B,NHBR(R5),B,SNDP+2(R5) ; TO-HLMERG-
79 003102 016565 000232 000016 MOV. B,NORY(R5),B,SNDP+4(R5)
80 003110 005365 000016 DEC. B,SNDP+4(R5) ;ZERO-ORGIN-QID-
81 003114 012700 000002 MOV. *%HLMERG,P0
82 003120 CALL. RUNTSK.
83 003124 RTN.
84 ;
85 ;
86 ; MDBU-REQUEST-CAME-IN-WHILE-BATCH-WAS-NON-EMPTY--
87 ; REQUEVE-REQUEST-TO-QUO, CLOSE-BATCH-
88 003126 POMDBR: SAVE. R2. ;EXISTING-PACKET-ADDRESS-
89 003130 CALL. GETFRE. ;GET-NEW-PACKET-
90 003134 012702 177777 000002 MOV. *+1,2(R2) ;MDBU-REQUEST-
91 003142 CALL. PUTOUT. ;REQUEVE-TO-TOP-
92 003146 RESTOR. P2.
93 ;
94 003150 005065 000056 CLR. B,QUOP(P5) ;MARK-QUO-ENTRY-PROCESSED-
95 ;
96 003154 000400 BR. BTCHCL. ;CLOSE-THE-BATCH-
97 ;
98 ;
99 ; BATCH-CLOSE-DECISION-MADE-- TELL-QT0 AND-HLMERG-TO-TERMINATE-
100 003156 112765 000001 000013 BTCHCL: MOV. *1,B,SNDP+1(R5) ;CLOSE-COMMAND-TO-QT0
101 003164 116565 000052 000014 MOV. B,NHBR(R5),B,SNDP+2(R5)
102 003172 012700 000001 MOV. *%QT0,P0
103 003176 CALL. RUNTSK.
104 003202 PSUMMS: P0 ;QT0 SUSPENDS-
105 003210 RTN.
106 ;
107 ;
108 ; NOW-TELL-HLMERG-TO-CLOSE-
109 003220 112765 000001 000013 HLMERCL: MOV. *1,B,SNDP+1(R5) ;CLOSE-COMMAND-TO-HLMERG-
110 003226 116565 000052 000014 MOV. B,NHBR(R5),B,SNDP+2(R5)
111 003234 012700 000001 MOV. *%HLMERG,P0
112 003240 CALL. RUNTSK.
113 003244 RTN.
114 ;
115 ;

```

```

116 ; QTO AND HLMBRG HAVE CLOSED - GO TO OPEN-TRANSLATE STATE AND
117 ; RUN THE TRANSLATOR
118 003246 012765 000001 000054 GOTOTS: MOV: #1,B,BSTA(R5) ; OPEN-TRANSLATE STATE
119 ;
120 003254 112765 000000 000013 MOV: #0,B,SNBP+1(R5) ; RUN THE TRANSLATOR
121 003262 116545 000052 000014 MOV: B,HBMP(P5),B,SNBP+2(R5)
122 003270 012700 000007 MOV: #QOTS,R0
123 003274 CALL FUNTSK
124 003300 RTN
125 ;
126 ;
127 ; TRANSLATOR HAS RUN - GO TO CLOSED STATE
128 003302 112765 000007 000053 GTCSDS: MOV: #BS,CLS,B,STTE(P5)
129 003310 005065 000005 CLR: B,BSTA(R5)
130 003314 RTN
131 ;
132 ;
133 ; IN CLOSED STATE - RUN NEXT SCHED TO OPEN BATCH
134 003316 116500 000052 RUNXTS: MOV: B,NMBR(R5),R0 ; GENERATE NEXT BATCH NUMBER
135 003320 062700 000002 ADD: #2,R0
136 003326 020027 000006 CMP: R0,#N,BHGH
137 003332 101401 BLOS: 1$
138 003333 005000 CLR: R0
139 003336 1$: CALL RUNSCH ; RUN SCHEDULER
140 003342 RTN
141 ;
142 ;
143 ; ALL BATCHES ACTIVE - SET FLAG, TELL HOST TO STOP
144 003344 052765 000004 000044 SETACT: BIS: #BIT2,B,STAT(R5)
145 003352 CALL HSTSTP ; TELL HOST TO STOP
146 003356 RTN
147 ;
148 ;
149 ; GO TO SEARCH MODE - LOAD CONTROL TABLES
150 003360 032765 000004 000044 GSMD: BIT: #BIT2,B,STAT(R5) ; BRANCH IF ALL BATCHES NOT ACTIVE
151 003366 001407 BEO: 1$
152 003370 042765 000004 000044 BIC: #BIT2,B,STAT(R5) ; OK NOW
153 003376 CALL RUNXTS ; OPEN A BATCH
154 003402 CALL HSTSTP ; TELL HOST TO START
155 ;
156 003406 112765 000003 000053 1$: MOV: #BS,SPC,B,STTE(P5) ; SEARCH IS CURRENT STATE
157 003414 005065 000054 CLR: B,BSTA(R5)
158 003420 052765 000010 000044 BIS: #BIT3,B,STAT(R5) ; SHOW WE ARE DOING A SEARCH
159 ;
160 ; GENERATE BATCH CUTOFF MSG
161 003426 016500 000010 BCOFMS: MOV: B,SFDB(R5),R0 ; FDB ADDRESS
162 003432 016004 000022 MOV: F,BKDS+2(R0),R4 ; BUFFER ADDRESS
163 003436 012724 041103 MOV: #CB,(R4)+ ; EXCHANGE ID
164 003442 005724 TST: (R4)+ ; PAD WORD
165 003444 116524 000052 MOV: B,NMBR(P5),(R4)+ ; BATCH NUMBER
166 003450 105024 CLR: (R4)+
167 003452 016503 000232 MOV: R,NQRY(P5),R3 ; NUMBER OF QUERIES
168 003456 010324 MOV: R3,(R4)+
169 ;
170 003460 010500 MOV: R5,R0 ; ADDRESS OF FIRST EQID
171 003462 062700 000234 ADD: #B,OMAP,R0
172 003466 005001 CLR: R1 ; QID 0

```

```

173 003470 012024      1$:      MOV.      (R0)+,(R4)+      ;MOVE IN EOID-
174 003472 010124      MOV.      R1,(R4)+      ;MOVE IN QID-
175 003474 005201      INC.      R1      ;NEXT QID-
176 003476 077304      SOB.      R3,1$      ;LOOP-
177
178 003500 112765 000003 000013      :BUILD SPOOL FILE-- SEND TO HOTSK-
179 003506 010504      MOV.      #3,B.SNDP+1(R5)      ;COMMAND
180 003510 062704 000014      MOV.      R5,R4      ;FDSC IN PACKET-
181 003514      ADD.      #B.SNDP+2,R4
182 003520 012700 000010      CALL.      WRTSPL      ;WRITE FILE-
183 003524      MOV.      *XHOTSK,R0      ;SEND PACKET TO HOTSK-
184 003530      CALL.      RUNTSK      ;
185      R5UM$S, P0      ;HOTSK SUSPENDS-
186
187 003544 016500 000010      : DELETE QUERY SPOOL FILES-
188 003550 016503 000232      DELOSP: MOV.      B.SFDB(R5),R0      ;FDB ADDRESS-
189 003554 001412      MOV.      B.NORY(R5),R3      ;# OF SPOOL FILES-
190      BEQ.      Z$      ;NONE-
191
192 003556 010501      MOV.      R5,R1      ;FIRST FDSC ADDRESS-
193      ADD.      #B.OSPL+0,FDSC,R1
194 003564
195 003570      1$:      CALL.      BLDFLB      ;BUILD FNB
196 003574 062701 000014      CALL.      .DLFNB      ;DELETE FILE-
197 003580 077307      ADD.      #0,SIZE,R1      ;NEXT FDSC
198      SOB.      P3,1$      ;LOOP FOR ALL FILES-
199
200 003602 012703 000001      :
201 003606 112765 000000 000013      2$:      MOV.      #N.SUNT-1,R3      ;HIGH SEARCH UNIT-#-
202 003614 116565 000052 000014      3$:      MOV.      #0,B.SNDP+1(R5)      ;COMMAND TO SULOAD-
203      MOV.      B.NMR(R5),B.SNDP+2(R5)
204 003622 010365 000016      MOV.      R3,B.SNDP+4(R5)      ;SEARCH UNIT TO LOAD
205 003626 012700 000005      MOV.      #XSULOAD,R0
206 003632      CALL.      RUNTSK      ;RUN SULOAD-
207 003636 006303      ASL.      R3      ;SEARCH UNIT STATUS-
208 003640 016304 000000G      MOV.      SHINDX(P3),P4      ;TABLE ENTRY-
209 003644 006203      ASR.      R3
210 003646 012764 000001 000000      MOV.      #SU.LOD,SS,STT(R4)      ;SET STATUS TO LOAD-
211 003654 005303      DEC.      P3      ;FOR ALL SEARCH UNITS-
212 003656 100353      BPL.      Z$
213
214 003660 116567 000052 177766G      :
215      MOV.      B.NMR(R5),SUST-2      ;BATCH NUMBER BEING SEARCHED-
216      RTH.
217
218 003670 016200 000006      :
219 003674 060000      :SULOAD REPORTED A SEARCH UNIT LOADED-- UPDATE ITS STATUS-
220 003676 016000 000000G      SSULOD: MOV.      6(R2),P0      ;SEARCH UNIT NUMBER
221      ADD.      P0,R0
222 003702 012760 000002 000000      MOV.      SUINDX(P0),P0      ;SUST ENTRY ADDRESS-
223      MOV.      #SU.SPC,SS,STT(R0)      ;UPDATE SU STATUS-
224      RTH.
225
226 003712 016200 000004      :
227 003716 060000      :SUXX DONE REPORTED IN-- UPDATE SU STATUS-
228 003720 016000 000000G      SXPDIR: MOV.      4(R2),R0      ;SU-#-
229      ADD.      R0,R0
230 003724 012760 000003 000000      MOV.      SUINDX(R0),P0      ;SUST ENTRY ADDRESS-
231      MOV.      #SU.XPD,SS,STT(R0)      ;SET SU STATUS-

```

```

230 003732- RTN
231
232
233
234 003734
235 003736
236 003742- 112762- 000000 000002-
237 003750 112762- 000001 000003
238 003756 116500 000052
239 003762- 062700 00 002
240 003766 020027 00 005
241 003772- 001401
242 003774 005000
243 003776 010062- 00 004 1$:
244 004002
245 004006
246
247 004010 RTN
248
249
250
251 004012- 016200 000004
252 004016 060000
253 004020 016000 000000G
254 004024 012763 000004 000000
255 004032-
256
257
258
259 004034 112765 000000 000013
260 004042- 116565 000052 000014
261 004050 012700 00 007
262 004054
263 004060
264
265
266
267 004062- 016500 000010
268 004066 012703 004126*
269
270 004072- 012301
271 004074 100006
272
273 004076 112765 000004 000053
274 004104 005065 000054
275 004110
276
277 004112- 060501
278 004114
279 004120
280 004124 000762-
281
282
283 004126
284 004126 000132-
285 004130 000142-
286 004132- 000152-

; ALL-SUXX DONE-ARE- IN- CLOSE NEXT BATCH.
CLSNXB: SAVE R2
CALL GETFRE
MOV: #XMSCHED,2(R2)
MOV: #1,3(R2)
MOV: B,NMBR(R5),R0
ADD: #2,R0
CMP: R0,#N,BHGH
BLOS: 1$
CLR: R0
MOV: R0,4(R2)
CALL PUTSSQ
RESTOR: R2

; CURRENT PACKET
; GET A PACKET
; GO TO SCHEDULER
; COMMAND
; GET NEXT SCHEDULER PATCH NUMBER

; BATCH NUMBER
; QUEUE PACKET
; CURRENT PACKET

; FOS-REPORTED- IN- UPDATE-SU-STATUS
SFOSIN: MOV: 4(R2),R0
ADD: R0,R0
MOV: SUINDX(R0),R0
MOV: #SU,DBU,SS,STT(R0)
RTN

; SEARCH-UNIT-#
; SUST-ENTRY-ADDRESS
; SET-SU-STATUS

; TELL-FOSMRG-TO-MERGE
MRGFOS: MOV: #0,B,SNBP+1(R5)
MOV: B,NMBR(R5),B,SNBP+2(R5)
MOV: #XFOSMRG,R0
CALL RUNTSK
RTN

; MERGE-COMMAND
; BATCH-NUMBER

; FOS-MERGED- DELETE-CONTROL-FILES- GO-TO-DBU-STATE
DELCTB: MOV: B,SFDB(R5),R0
MOV: #BFDSP,R3

; FDB-ADDRESS
; TABLE-OF-FILES-TO-DELETE

1$: MOV: (R3)+,R1
BPL: 2$

; FDSC-INDEX
; CONTINUE-IF-NOT-END-OF-TABLE

2$: ADD: R5,R1
CALL BLDEFL
CALL BLFNBR
BP: 1$

; FDSC-ADDRESS
; BUILD-FNB
; DELETE-FILE
; GO-AGAIN

; TABLE-OF-FILES-TO-DELETE
BFDSP:
WORD: B,FEMA
WORD: B,FEMB
WORD: B,FEMC

```

```

287 004134 000162 .WORD B,FOLS
288 004136 000172 .WORD B,FHHR
289 004140 000202 .WORD B,FFSA
290 004142 000212 .WORD B,FFSB
291 004144 000222 .WORD B,FFSC
292 004146 177777 .WORD -1
293
294
295 ; START SHORT CYCLE
296 004150 012701 000001 STRTSC: MOV #N,SUNT-1,R1 ;PUT ALL SU IN DBU STATE
297 004154 006301 1$: ASL R1
298 004156 016100 000000G: MOV SUINDX(R1),R0
299 004162 006201 000000: ASR R1
300 004164 012760 000004 000000: MOV #SU,DBU,SS,STT(R0)
301 004172 005301 000000: DEC R1
302 004174 100367 000000: BPL 1$
303
304 004176 112765 000004 000053: MOVB #BS,DBU,B,STTE(R5) ;BATCH IN CDBU STATE
305 004204 005065 000054: CLR B,BSTA(R5)
306
307 004210: CALL RUNXTS ;OPEN NEXT BATCH
308 004214: CALL CLSNXB ;REQUEST NEXT BATCH TO CLOSE
309
310 004220: RTN
311
312 ; RUN DBPROC TO DO CDBU
313 DBPCDB: MOV #0,B,SNDP+1(R5) ;COMMAND
314 004222 112765 000000 000013: MOVB #NMBR(R5),B,SNDP+2(R5) ;BATCH NUMBER
315 004230 116565 000052 000014: MOV #XDBPROC,R0 ;TO DBPROC
316 004236 012700 000012: CALL RUNTSK
317 004242: RTN
318 004246
319
320 ; ONE SU REPORTED CDBU DONE -- UPDATE SU STATUS
321 SCDBUD: MOV 4(R2),R0 ;SU #
322 004250 016200 000004: ADD R0,R0
323 004254 000000: MOV SUINDX(R0),R0 ;SU TABLE ENTRY ADDRESS
324 004256 016000 000000G: MOV #SU,SPR,SS,STT(R0) ;NEW STATUS
325 004262 012760 000005 000000: RTN
326 004270
327
328 ; RUN GTSREC TO GET THE STATUS RECORDS
329 GSRECR: MOV #N,SUNT-1,R3 ;HIGH SU#
330 004272 012703 000001 000013 1$: MOVB #0,B,SNDP+1(R5) ;COMMAND TO GTSREC
331 004276 112765 000000 000013: MOV R3,B,SNDP+2(R5) ;SU # TO REQUEST
332 004304 010365 000014: MOV #XGTSREC,R0 ;RUN GTSREC
333 004310 012700 000014: CALL RUNTSK
334 004314: ASL R3 ;SUST ENTRY ADDRESS
335 004320 006303 000000G: MOV SUINDX(R3),R4
336 004322 016304 000000: ASR R3
337 004326 006203 000000: MOV #SU,SPR,SS,STT(P4) ;SET SU STATUS
338 004330 012764 000005 000000: DEC R3 ;FOR ALL SU
339 004336 005303 000000: BPL 1$
340 004340 100356
341
342 004342: RTN
343

```

```

344
345
346 004344 016200 000004
347 004350 000000
348 004352 016000 000000G
349 004356 012760 000006 000000
350 004364
351
352
353
354
355 004366
356 004366 032765 000010 000044
357 004374 001402
358 004376
359
360 004402 012701 000001
361 004406 006301
362 004410 016100 000000G
363 004414 006201
364 004416 012760 000000 000000
365 004424 005301
366 004426 100367
367 004430 112767 177777 177776G
368
369 004436
370
371 004454
372 004456
373 004462 112762 000000 000002
374 004470 112762 000002 000003
375 004476 116500 000052
376 004502 062700 000002
377 004506 020027 000006
378 004512 101401
379 004514 005000
380 004516 010062 000004
381 004522
382 004526
383
384 004530
385
386 004534 010503
387 004536
388 004542 005702
389 004544 001371
390
391 004546 112765 000000 000053
392 004554 005065 000054
393 004560 005065 000044
394 004564 005065 000232
395
396
397 004570
398
399
400

; STATUS RECORD REPORTED IN - UPDATE SU STATUS
SSRCIN: MOV 4(R2),R0 ; SU: #
ADD R0,R0
MOV SUINDX(R0),R0 ; SUST ENTRY ADDRESS
MOV #SU,DON,SS,STT(R0) ; NEW STATUS
RTN

;
;
; SEARCH CYCLE COMPLETE - WRAP-UP THIS SCHEDULER
;
; WRAPUP:
BIT #BIT3,B,STAT(R5) ; BRANCH IF DIDN'T DO
BEQ STATDN ; A SEARCH
CALL DOSTAT ; ACCUMULATE CURRENT STATS
; MAKE OUR SEARCH UNITS INACTIVE
STATDN: MOV #N,SUNT-1,R1 ; LOOP THROUGH SU'S
1$: ASL R1
MOV SUINDX(R1),R0
ASR R1
MOV #SU,IDL,SS,STT(R0) ; IDLE
DEC R1
BPL 1$
MOV #1,SUST-2 ; NO BATCH BEING SEARCHED
; TELL NEXT BATCH TO SEARCH
NXBCSH: ALTP#S, #100 ; HIGH PRI DURING WRAPUP
;
;
; SAVE R2 ; OLD PACKET
CALL GETFRE ; GET A PACKET
MOV #XMSCHED,2(R2) ; GO TO NEXT SCHEDULER
MOV #2,3(R2)
MOV B,NMBR(R5),R0 ; GET NEXT SCHED'S BATCH NUMBER
ADD #2,R0
CMP R0,#N,BHGH
BLOS 1$
CLR R0
MOV R0,4(R2) ; BATCH NUMBER
CALL PUTSSQ ; QUEUE PACKET
RESTOR R2 ; OLD PACKET
; GET RID OF CURRENT SSQ PACKET
DMPSSQ: CALL PUTFRE ; RELEASE PACKET
; PURGE SSQ
MOV R5,R3 ; GET TOP SSQ PACKET
CALL GETSSQ
TST R2 ; BRANCH IF GOT ONE
BNE DMPSSQ
; CLEAN UP OUR BST
MOV #BS,INA,B,STTE(R5) ; BATCH INACTIVE
CLR B,BSTN(R5)
CLR B,STAT(R5) ; SCHEDULER STATUS FLAGS
CLR B,NORY(P5) ; NO QUERY SPOOL FILES
;
; EXIT SCHEDULER
EXIT$S
;
;
;

```

401
402
403 004576
404
405
406
407 004600 000167 177775
408
409

;
; NO-OPERATION
CNOP: RTN
;
;
; CRASH-CAN'T-HAPPEN CASE
CRASH: JMP: .+1
;
;

.SBTTL: MDBU CONDITION MATCH ROUTINES.

```

411
412
413
414
415 004604
416
417 004610 012701 000001
418 004614 006301
419 004616 016100 000000G
420 004622 006201
421 004624 012700 000004 000000
422 004632 005301
423 004634 100367
424
425 004636 112765 000004 000053
426 004644 012765 000001 000054
427
428 004652
429
430
431
432 004654 112765 000001 000013
433 004662 116565 000005 000014
434 004670 012700 000012
435 004674
436
437 004700 112765 000002 000013
438 004706 012700 000010
439 004712
440 004716
441 004732
442
443
444
445 004734
446 004740
447 004744
448 004750
449

:
:
: START: A: MDBU REQUEST:
STMDBU: CALL: HSTSTP: : TELL: HOST TO: STOP: QUERIES:
:
: MOV: *N, SUNT-1, R1 : PUT: SU'S: IN: DBU: STATE:
: ASL: R1
: MOV: SUINDX(R1), R0
: ASR: R1
: MOV: *SU, DBU, SS, STT(R0)
: DEC: R1
: BPL: 1$
:
: MOV: *BS, DBU, B, STTE(R5) : BATCH: IN: MDBU: STATE
: MOV: *BIT0, B, BSTA(R5)
:
: RTN:
:
: ACHIEVED BATCH RUN-DOWN - START: DBPROC DOING: MDBU:
MDBUGO: MOV: *1, B, SNDP+1(R5) : RUN: DBPROC: FOR: MDBU
: MOV: B, NMBR(P5), B, SNDP+2(R5)
: MOV: *XDBPROC, R0
: CALL: RUNTSK:
:
: MOV: *2, B, SNDP+1(R5) : TELL: HOST TO: START: MDBU:
: MOV: *XHOTSK, R0
: CALL: RUNTSK:
: RSM: R0 : HOTSK: SUSPENDS:
: RTN:
:
:
: MDBU COMPLETE0 - START: QUERIES, OPEN AND CLOSE: NEXT: BATCH:
MDBUDN: CALL: HSTSR: : START: QUERIES:
: CALL: PUNXTS: : OPEN: NEXT: BATCH:
: CALL: CLSNXB: : REQUEST: NEXT: BATCH: CLOSE:
: RTN:
:

```


.SBTTL - ERROR PATH CONDITION ROUTINES.

451
 452
 453
 454
 455 004752 005001
 456 004754 012703 000144
 457 004760
 458
 459 004764
 460 004770 000167 175642
 461
 462
 463
 464 004774 016201 000006
 465 005000 016203 000010
 466 005004 000765
 467
 468
 469
 470 005006
 471 005012 000167 176140
 472
 473
 474
 475 005016 016201 000006
 476 005022 016203 000010
 477 005026
 478 005032
 479
 480 005036 005765 000232
 481 005042 001403
 482 005044
 483 005050 000772
 484
 485
 486
 487 005052 112765 000002 000013
 488 005060 116565 000052 000014
 489 005066 012700 000001
 490 005072
 491 005076
 492 005112
 493
 494
 495
 496 005114 112765 000003 000013
 497 005122 116565 000052 000014
 498 005130 012700 000002
 499 005134
 500 005140
 501
 502
 503
 504 005142 005065 000054
 505
 506 005146 016500 000010
 507 005152 012703 004126

```

; DUMP SINGLE QUERY IN BATCH - CONTINUE WITH EMPTY BATCH.
DLORAP: CLR      R1              :DID ZERO.
        MOV      #0E,R01,R3     :ERROR CODE.
MSGHDP: CALL     PARSEM         :MESSAGE TO HOST.
;
        CALL     DMPQRY         :DUMP QUERY.
        JMP      TULOUQ         :GO TO QUQ
;
; DUMP LAST QUERY IN BATCH (PARSE ERROR) - CONTINUE WITH OPEN BATCH.
GRIDOR: MOV      6(R2),R1        :DID.
        MOV      8(R2),R3        :ERROR CODE.
        BR       MSGHDP         :MESSAGE TO HOST, DUMP QUERY.
;
; REQUEUE LAST QUERY - TERMINATE BATCH.
RODTRM: CALL     REQQRY         :
        JMP      BTCHCL         :
;
; DUMP LAST QUERY - REQUEUE REMAINING QUERIES IN BATCH.
DLRORM: MOV      6(R2),R1        :DID.
        MOV      8(R2),R3        :ERROR CODE.
        CALL     PARSEM         :MESSAGE TO HOST
        CALL     DMPQRY         :DUMP LAST QUERY
;
1$:     TST      B,NDRY(P5)      :REQUEUE REMAINING.
        BEQ      ABRTQT         :
        CALL     REQQRY         :
        BR       1$             :
;
; ABORT TO QT0 FOR CURRENT BATCH.
ABRTQT: MOV      #2,B,SNDP+1(R5) :ABORT COMMAND.
        MOV      B,NMBR(P5),B,SNDP+2(R5) :BATCH #.
        MOV      #XQT0,R0
        CALL     RUNTSK         :
        RSUM#S: R0              :QT0 SUSPENDS.
        RTN.
;
; ABORT TO HLMERG FOR CURRENT BATCH.
ABRTHL: MOV      #3,B,SNDP+1(R5) :ABORT COMMAND.
        MOV      B,NMBR(P5),B,SNDP+2(R5) :BATCH #.
        MOV      #XHLIEFG,R0
        CALL     RUNTSK         :
        RTN.
;
; START TO REPROCESS CORRUPTED BATCH.
REPRCB: CLR      B,BSTH(P5)      :BATCH STATE OPEN, ACTIVE.
; DELETE CONTROL FILES.
        MOV      B,SFDB(P5),R0   :R0->FDB.
        MOV      #BFDSP,R3       :R3->TABLE OF FILES TO DELETE.

```

```

500 005156 012301      1#:  MOV.      (P3)+.P1      ;R1 = FDSC INDEX.
501 005160 100406      BMI.      2#          ;BRANCH IF DONE.
510 005162 000501      ADD.      R5,R1      ;R1->FDSC.
511 005164      CALL.    BLDFLB.      ;BUILD FNB.
512 005170      CALL.    .DLFNB.      ;DELETE FILE.
513 005174 000770      BR.        1#          ;GO AGAIN.
514 005176 000725      2#:  BR.        ABRTQT.
515
516
517      ; SEVERAL QUERIES IN BATCH - REQUEUE LAST ONE AND REPROCESS REST.
518 005200      POLRPR: CALL.  REQORY.      ;REQUE LAST QUERY.
519
520 005204 005065 000016      CLP.      B,SNBP+4(R5)      ;START WITH QUERY #.0
521 005210 112765 000000 000013  NXTORP: MOV.      *0,B,SNBP+1(R5)      ;MERGE COMMAND.
522 005216 116565 000052 000014      MOV.      B,NMBR(R5),B,SNBP+2(R5) ;BATCH NUMBER.
523 005224 012700 000011      MOV.      *XQT0,R0
524 005230      CALL.    RUNTSK.
525 005234      RSUM#S. R0
526 005250      RTN.
527
528
529      ; QTO MERGED QUERY - GIVE UHL TO HLMERG.
530 005252 016265 000006 000016  GIVUHL: MOV.      6(R2),B,SNBP+4(R5)      ;QID.
531 005260 112765 000000 000013      MOV.      *0,B,SNBP+1(R5)      ;COMMAND TO MERGE.
532 005266 116565 000052 000014      MOV.      B,NMBR(P5),B,SNBP+2(P5) ;BATCH #.
533 005274 012700 000002      MOV.      *3HLMERG,R0
534 005300      CALL.    PUHTSK.
535 005304      RTN.
536
537
538      ; ALL QUERIES NOT REPROCESSED YET - GO WITH NEXT ONE.
539 005306 016265 000006 000016  CONTRP: MOV.      6(R2),B,SNBP+4(R5)      ;NEXT QID.
540 005314 005265 000016      INC.      B,SNBP+4(R5)
541 005320 000733      BR.        NXTORP.      ;GO TO QTO
542

```

```

2.
3.
4.
5.
6.
7.
8.
9.
10.
11. 005322 060000
12. 005324 060000
13. 005326 062700 005420*
14. 005332 062705 000012
15. 005336
16.
17. 005356
18. 005402 005025
19. 005404 005025
20. 005406 005025
21. 005410 005025
22. 005412 062705 000A22
23. 005416
24.
25.
26.
27.
28. 005420 052073 031314
29. 005424 066576 000000
30. 005430 031755 021027
31. 005434 066563 000000
32. 005440 014534 056754
33. 005444 075024 056754
34. 005450 015413 035160
35. 005454 023753 052027
36. 005460 032154 074170
37. 005464 031574 074170
38. 005470 014540 071333
39. 005474 006274 012000
40. 005500 027363 070513
41.
42.
43.
44.
45.
46.
47.
48. 005504 060000
49. 005506 062700 005540*
50. 005512
51. 005536
52.
53.
54. 005540 073500 016716
55. 005544 073500 016720
56. 005550 073500 016722
57. 005554 073500 016724
58.

.SBTTL: STATE: TABLE: SUPPORT: ROUTINES.
;
;
; ISSUE: SEND: DIRECTIVE: FOR: SCHEDULER: AND: RUN: TASK.
;
; INPUT: DATA: IN: B:SNDP.
; R0=DESTINATION: MODULE: ID.
; OUTPUT: DATA: SENT: MODULE: REQUESTED.
;
RUNTSK: ADD: R0,R0 ;GENERATE: ADDRESS: OF: MODULE: NAME.
ADD: R0,R0
ADD: #MNINDX,R0
ADD: #B,SNDP,R5 ;ADDRESS: OF: DATA.
SDAT$S: R0,R5 ;SEND: THE: DATA.
;
R0ST$S: R0 ;RUN: THE: TASK.
CLR: (R5)+ ;CLEAR: BEGINNING: OF: SEND: PACKET.
CLR: (R5)+
CLR: (R5)+
CLR: (R5)+
SUB: #B,SNDP+0,,R5 ;RESTORE: BST.
RTN:
;
;
; MODULE: NAMES.
;
MNINDX: ,RAD50 /MSCHED/ :0
,RAD50 /QT0 / :1
,RAD50 /HLMERG/ :2
,RAD50 /QTS / :3
,RAD50 /DBLOAD/ :4
,RAD50 /SULOAD/ :5
,RAD50 /DMCIN/ :6
,RAD50 /FOSMRG/ :7
,RAD50 /H0TSK/ :8
,RAD50 /HITSK/ :9
,RAD50 /DBPROC/ :10
,RAD50 /BATCH/ :11
,RAD50 /GTSPEC/ :12.
;
;
; OPEN: A: NEW: BATCH.
;
; INPUT: R0 = BATCH: NUMBER: FOR: SCHEDULER
;
RUNSCH: ADD: P0,P0 ;GENERATE: ADDRESS: OF: SCHD: NAME
ADD: #SCHNAM,P0
R0ST$S: P0 ;RUN: PROPER: SCHEDULER.
RTN:
;
;
; SCHNAM: ,RAD50 /SCHD00/
,RAD50 /SCHD02/
,RAD50 /SCHD04/
,RAD50 /SCHD06/
;

```

```
59      ;  
60      ; TELL HOST TO START/STOP QUERIES  
61      ;  
62      ; INPUT: NONE  
63      ;  
64 005560 112765 000001 000013 HSTSTP: MOVB: #1,B,SNDR+1(R5) ;STOP QUERIES  
65 005566 000403 BR HSTSHD  
66      ;  
67 005570 112765 000000 000013 HSTSRT: MOVB: #0,B,SNDR+1(R5) ;START QUERIES  
68 005576 012700 000010 HSTSND: MOV: #HOTSK,R0 ;GO TO HOTSK  
69 005603 CALL RUHTSK  
70 005606 RSUMES: R0 ;HOTSK SUSPENDS  
71 005622 RTI  
72      ;  
73      ;
```

```

75
76
77
78 005624
79 005626 012704 000000G
80
81 005632 005264 000000
82 005636 066564 000232 000002
83 005644 016501 000110
84 005650 016502 000112
85 005654 016500 000232
86 005660
87 005664 060264 000006
88 005670 005564 000004
89 005674 060164 000004
90 005700 066564 000116 000012
91 005706 005564 000010
92 005712 066564 000114 000010
93 005720 066564 000076 000016
94 005726 005564 000014
95 005732 066564 000100 000022
96 005740 005564 000020
97 005744 066564 000102 000026
98 005752 005564 000024
99 005756 066564 000104 000032
100 005764 005564 000030
101 005770 066564 000106 000036
102 005776 005564 000034
103
104 006002 005001 CLR R1 ; SEARCH TIME PER SU
105 006004 012703 MOV #N,SUNT,R3
106 006010 010302 MOV R3,R2
107 006016 005302 DEC R2
108 006014 060202 ADD R2,R2
109 006016 016202 MOV SPECT(R2),R2
110 006020 066201 SR,SR(R2),R1
111 006026 077310 SOB R3,1$
112 006030 005000 CLR R0
113 006032 071027 DIV #N,SUNT,R0
114 006036 060064 ADD R0,ST,SCH+2(R4)
115 006042 005564 ADC ST,SCH(R4)
116
117 006046 RESTOR R2
118 006050 RTN
119

```

```

121 ;
122 ; TRACE STATE TABLE CHANGES
123 ;
124 ; INPUT - R4= CURRENT NODE ADDRESS
125 ; SYSFLG-BIT0= TRACE FLAG
126 ;
127 006052 032767 000001 000000G TRACE: BIT #BIT0,SYSFLG: :BRANCH IF TRACING
128 006060 001001 BNE: TRCISO: :RETURN
129 006062 RTN:
130 ;
131 006064 TRCISO: SAVE: R4
132 006066 016503 000010 MOV: B,SFDB(R5),R3: :BUILD LINE IN FDB FNB
133 006072 062703 000102 ADD: #F,FNB,R3
134 ;
135 006076 010401 MOV: R4,R1: :CURRENT NODE ADDRESS
136 006100 162701 000000 SUB: #STENT,R1
137 006104 072127 000004 ASH: #4,R1
138 006110 012704 000004 MOV: #4,R4: :LOOP COUNT
139 ;
140 006114 005000 1$: CLR: R0: :STORE FOUR CHARACTERS
141 006116 073027 000003 ASHC: #3,R0
142 006122 062700 000000 ADD: #60,R0
143 006126 110023 MOV: R0,(R3)+
144 006130 077407 SOB: R4,1$
145 006132 112723 000040 MOV: #,(R3)+
146 ;
147 006136 116501 000052 MOV: B,NMBR(R5),R1: :BATCH NUMBER
148 006142 CALL: STRTWO
149 006146 112723 000040 MOV: #,(R3)+
150 ;
151 006150 016504 000010 MOV: B,SFDB(R5),R4: :GET TIME
152 006156 062704 000120 ADD: #F,FNB+14,,R4
153 006162 GTIM#S: R4
154 ;
155 006172 062704 000010 ADD: #0,,R4: :STORE ASCII TIME IN BUFFER
156 006176 012401 MOV: (R4)+,R1
157 006200 CALL: STRTWO
158 006204 112723 000072 MOV: #,(R3)+
159 006210 012401 MOV: (R4)+,R1
160 006212 CALL: STRTWO
161 006216 112723 000072 MOV: #,(R3)+
162 006222 012401 MOV: (R4)+,R1
163 006224 CALL: STRTWO
164 ;
165 006230 RESTOR: R4
166 ; PRINT LINE
167 006232 162703 000020 SUB: #16,,R3
168 006236 Q10W#S: #10,WLB,#TRCLUN,#1,,,,<R3,#16,,#40>
169 ;
170 006306 RTN
171 ;
172 ;
173 ; STORE TWO DECIMAL DIGITS
174 ;
175 ; R1= 2-DIGIT NUMBER
176 ; R3= PLACE TO STORE IT
177 ;

```

178 006310	005000	STRTWO: CLR	R0	
179 006312	071027	DIV	#10, R0	
180 006316	062700	ADD	#60, R0	; HIGH ORDER
181 006322	110023	MOVB	R0, (R3)+	
182 006324	062701	ADD	#60, R1	
183 006330	110123	MOVB	R1, (R3)+	; LOW ORDER
184 006332		RTN		
185				
186				

```

188                                     :
189                                     :
190                                     : GENERATE ERROR-EXCHANGE-TO-HOST.
191                                     :
192                                     : INPUT: R1= QID.
193                                     : R3= ERROR CODE.
194                                     :
195 PARSEM: MOV.      B,SFDB(R5),R0      :FDB ADDRESS.
196          MOV.      F,BKDS+2(R0),R4   :BUFFER ADDRESS.
197          MOV.      #*EO,(R4)+        :EXCHANGE ID.
198          TST.      (R4)+              :PAD.
199          ADD.      R1,R1              :GET QID INDEX.
200          ADD.      R5,R1
201          MOV.      B,DIMP(R1),(R4)+   :EQID OF BHD QUERY.
202          MOV.      R3,(R4)           :ERROR CODE.
203                                     :
204          BUILD-SPOLL-FILE - SEND-TO-HOTSK.
205          MOV.      #4,B,SNBP+1(R5)    :COMMAND TO HOTSK.
206          MOV.      R5,R4              :FDSC IN PACKET.
207          ADD.      #3,SNBP+2,R4
208          CALL.     WRFSPL.             :WRITE FILE.
209          MOV.      #N,HOTSK,R0        :SEND PACKET TO HOTSK.
210          CALL.     PUNFSK.
211          RSUM#S.   R0                :HOTSK SUSPENDS.
212          RTN.

```



```

214      ;
215      ; REQUEUE LAST QUERY IN BATCH TO QUD.
216      ;
217      ; INPUT - R5= BST.
218      ; B.NQRY= # OF QUERIES IN BATCH.
219      ;
220      REQQRY: SAVE R2      ; SAVE CURRENT SSQ PACKET ADDRESS.
221      CALL GETFRE      ; GET FREE PACKET.
222      ;
223      006440 005365 000232      DEC B.NQRY(R5)      ; ONE LESS QUERY.
224      006444 016501 000232      MOV B.NQRY(R5),R1      ; GENERATE EQID INDEX
225      006450 010100      MOV R1,R0
226      006452 060000      ADD R0,R0
227      006454 060000      ADD R5,R0
228      006456 016062 000234 000006      MOV B.QMAP(R0),6(R2)      ; EQID TO PACKET.
229      ;
230      006464 070127 000014      MUL #Q.SIZE,R1      ; GENERATE SPOOL AREA INDEX.
231      006470 062701 000316      ADD #B.OSPL,R1
232      006474 060501      ADD R5,R1
233      006476 016162 000000 000002      MOV 0.NOBK(R1),2(R2)      ; MOVE SPOOL FILE INFO TO PACKET.
234      006504 016162 000002 000004      MOV 0.NUHL(R1),4(R2)
235      006512 016162 000004 000010      MOV 0.FDSC(R1),8(R2)
236      006520 016162 000006 000012      MOV 0.FDSC+2(R1),10(R2)
237      006526 016162 000010 000014      MOV 0.FDSC+4(R1),12(R2)
238      006534 016162 000012 000016      MOV 0.FDSC+6(R1),14(R2)
239      ;
240      006542      CALL PUTOUT      ; QUD PACKET ON TOP.
241      006546      RESTOR R2      ; RESTORE CURRENT SSQ ENTRY.
242      006550      RTN.
243      ;
244      ;
245      ; REMOVE LAST QUERY FROM BATCH
246      ;
247      ; INPUT - R5= BST.
248      ; B.NQRY= # OF QUERIES IN BATCH.
249      ;
250      DMPQRY: DEC B.NQRY(R5)      ; ONE LESS QUERY.
251      006556 016501 000232      MOV B.NQRY(R5),R1      ; GENERATE ADDRESS OF FDSC.
252      006562 070127 000014      MUL #Q.SIZE,R1
253      006566 062701 000000C      ADD #B.OSPL+0.FDSC,R1
254      006572 060501      ADD R5,R1
255      006574 016500 000010      MOV B.SFDB(R5),R0      ; FDB.
256      006600      CALL BLDFL      ; BUILD FNB
257      006604      CALL .DLFNB      ; DELETE SPOOL FILE.
258      ;
259      ;
260      ; SPECIAL EXCHANGE TO HOST.
261      ;
262      006610 012700 006574      MOV #MSG1,R0      ; ERROR MSG TO CONSOLE.
263      006614      CALL COMSG
264      ;
265      RTN.
266      ;

```

```

267
268
269      ; CONSOLE MESSAGE TO CONSOLE
270
271      ; INPUT - R0= MESSAGE ADDRESS
272
273 006622 012001 COMSG: MOV: (R0)+,R1
274 006624          OIOWSS: #10,WLB,#COLUN,#1,...,<R0,R1,#40>
275 006672          RTH
276
277
278      ; ERROR MESSAGES
279
280
281 006674 000024 MSG1: .WORD: MSG1L
282 006676      115 123 103 MSG1T: .ASCII: /MSCHED: QUERY DUMPED/
283 006701      110 105 104
284 006704      072 040 121
285 006707      125 105 122
286 006712      131 040 104
287 006715      125 115 120
288 006720      105 104
289
290 000024 MSG1L=-MSG1T
291          .EVEN
292
293 006722 000022 MSG2: .WORD: MSG2L
294 006724      115 123 103 MSG2T: .ASCII: /MSCHED: DISK ERROR/
295 006727      110 105 104
296 006732      072 040 104
297 006735      111 123 113
298 006740      040 105 122
299 006743      122 117 122
300
301 000022 MSG2L=-MSG2T
302          .EVEN
303
304 006746 000020 MSG3: .WORD: MSG3L
305 006750      115 123 103 MSG3T: .ASCII: /MSCHED: TIME-OUT/
306 006753      110 105 104
307 006756      072 040 124
308 006761      111 115 105
309 006764      055 117 125
310 006767      124
311
312 000020 MSG3L=-MSG3T
313          .EVEN
314
315
  
```

```

297
298
299
300
301
302
303 006770
304 007002 012701 000042
305 007006
306 007012
307 007024 103426
308
309 007026
310 007032
311 007036 105760 000052
312 007043 100417
313
314 007044 016064 000102 000000
315 007052 016064 000104 000002
316 007060 016064 000120 000004
317 007066 010164 000006
318 007072
319 007076 103401
320 007100
321
322
323 007102
324 007104
325 007106 012700 006722
326 007112
327 007116
328 007126
329
330 007122
331 007126 005064 000000
332 007132
333

```

```

; WRITE SINGLE-BLOCK-EXCHANGE SPOOL FILE (1024-WORD-BLOCK)
;
; INPUT - R4= ADDRESS OF WHERE TO BUILD FDSC
; DATA IN DATBUF
;
WRTSPL: FDATA$ B,SFDB(R5),...*-N,BFAC: ;ALLOCATE FILE
MOV: #FN,SHD,R1 ;BUILD FNB
CALL: BLDNFL
OFNB$W: ;OPEN FILE
BCS: FILERR
;
WRITE$ ;WRITE THE BLOCK
WAIT$
TSTB: F,ERR(R0)
BHI: FILERR
;
MOV: F,FNB+N,FID(R0),FD,FID(R4) ;MOVE FDSC
MOV: F,FNB+N,FID+2(R0),FD,FID+2(R4)
MOV: F,FNB+N,FVER(R0),FD,FVR(R4)
MOV: R1,FD,FNB(R4)
CLOSE$ ;CLOSE FILE
BCS: FILERR
RTN:
;
; ERROR WRITING FILE
FILERR: SAVE: R0
SAVE: R1
MOV: #MSG2,R0 ;DISK-ERROR MESSAGE
CALL: COMSG ;MESSAGE TO CONSOLE
RESTOR: R1
RESTOR: R0
;
CALL: ,DLFNB ;TRY TO DELETE FILE
CLR: FD,FID(R4) ;NO FILE BUILT
RTN:
;

```

STT.....MF M1110 27-MAR-80 13:23
STATE TABLE SUPPORT ROUTINES

PAGE 31

335	:	PRINT MSG UPON TIMEOUT	
336	:		
337	:		
338 007134 012700 006746	:	PRMSG: MOV: #MSG3.R0	:MESSAGE TO CONSOLE
339 007140	:	CALL: COMSG:	
340	:		
341 007144	:	CALL TRCISO:	:FORCE A TRACE LINE
342 007150	:	RTN:	
343	:		

```
345  
346  
347  
348 007152:      :      :      :      :      :      :  
349 007154: 116500 000050      :      :      :      :      :  
350 007160      :      :      :      :      :      :  
351 007170      :      :      :      :      :      :  
352  
353 007172: 052765 100000 000044      :      :      :      :  
354  
355 007200: 005726      :      :      :      :      :  
356 007202:      :      :      :      :      :  
357
```

TIMEOUT AST
TIMAST: SAVE R0
MOV B,SSQF(R5),R0 ;SET EVENT FLAG
SETF\$S R0
RESTOR R0
BIS #BIT15,B,STAT(R5) ;TIMEOUT FLAG
TST (SP)+ ;REMOVE AST PARAMETER
ASTX\$S ;EXIT AST

1

000001

.END.

SYMBOL TABLE

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

ABHLCP 002052R	B.FFSB 000212R	010 DBPCDB 004222R	FD.RAN= 000002	F.EOBB= 000032
ABHLRS 002005R	B.FFSC 000222R	010 DBSLEN= 000116	FD.REC= 000001	F.ERR= 000052
ABRTHL 005114R	B.FMHR 000172R	010 DELCTB 004062R	FD.RUM= 000001	F.FACC= 000043
ABRTQT 005052R	B.FOLS 000162R	010 DELQSP 003544R	FD.SDI= 000020	F.FFBY= 000014
ACDBUD 001544R	B.FSAZ 000100R	010 DESCND 000370R	FD.SQD= 000040	F.FNAM= 000110
AFOSIN 001434R	B.FSBZ 000102R	010 DH.BF0 000002	005 FD.TTY= 000004	F.FNB= 000102
ALODEU 001324R	B.FSCZ 000104R	010 DH.BF1 000004	005 FD.WBH= 000002	F.FTYN= 000116
ALODEU 001720R	B.HBLK 000120R	010 DH.CTL 000000	005 FF.CHR= 000005	F.FVER= 000120
ASPCIN 001610R	B.HDOC 000114R	010 DH.DMC 000310	005 FF.NV= 000003	F.HIBK= 000004
APUIN 001370R	B.HRLP 000126R	010 DH.FLG 000006	005 FF.POE= 000002	F.LUN= 000042
SCHEMP 000642R	B.HRLR 000122R	010 DLORAP 000752R	FF.RWD= 000001	F.HBCT= 000054
SCOFMS 003426R	B.HRLW 000124R	010 DLORRI 000016R	FF.RWF= 000006	F.HBCT= 000055
BFDSPT 004126R	B.NHBR 000052R	010 DMPDRY 000552R	FF.SPC= 000034	F.NBFG= 000056
BITVAL= 000000	B.NORY 000232R	010 DMPSPR 004530R	FILERR= 007102R	F.NPRD= 000024
BIT0 = 000001	B.QLSZ 000106R	010 DN = 177777	FN.DBR= 000026	011 F.NREC= 000030
BIT1 = 000002	B.QMAP 000234R	010 DN.DCK 000000	013 FN.DBS= 000022	011 F.OVBS= 000030
BIT10 = 002000	B.QSPL 000316R	010 DN.NTP 000004	013 FN.DHR= 000040	011 F.RACC= 000016
BIT11 = 004000	B.QTTM 000076R	010 DN.NXT 000005	013 FN.ENA= 000012	011 F.PATT= 000001
BIT12 = 010000	B.QUOP 000056R	010 DN.KOT 000002	013 FN.EMB= 000014	011 F.PCHN= 000034
BIT13 = 030000	B.SFDB 000010R	010 DN.SIZ 000010	013 FN.EMC= 000016	011 F.RCTL= 000017
BIT14 = 040000	B.SIZE 000772R	010 DOSTAT 000624R	FN.FSA= 000000	011 F.RIZ= 000002
BIT15 = 100000	B.SNDP 000012R	010 DUNTSO 002074R	FN.FSB= 000002	011 F.RTYP= 000000
BIT2 = 000004	B.SSD 000004R	010 FALSE 002210R	FN.FSC= 000004	011 F.SEON= 000100
BIT3 = 000010	B.SSUF 000050R	010 FA.APD= 000100	FN.LGO= 000034	011 F.SPDV= 000072
BIT4 = 000020	B.SLAT 000044R	010 FA.CPE= 000010	FN.LGU= 000036	011 F.SPUH= 000074
BIT5 = 000040	B.STTE 000053R	010 FA.DLK= 001000	FN.MFO= 000024	011 F.STBK= 000036
BIT6 = 000100	B.UDOC 000110R	010 FA.ENG= 100000	FN.MHR= 000010	011 F.UNIT= 000136
BIT7 = 000200	CACDBU 002466R	FA.EXC= 002000	FN.NMB= 000044	011 F.URBD= 000020
BIT8 = 000400	CAFOSI 002434R	FA.EXI= 000004	FN.QLS= 000006	011 F.VBN= 000064
BIT9 = 001000	CASRLI 002520R	FA.NSP= 000100	FN.QRY= 000020	011 F.VBSZ= 000060
BLDEFL= ***** G	CASULD 002350R	FA.POS= 010000	FN.SFO= 000030	011 GETFRE= ***** G
BLDNFL= ***** G	CAMPDI 002402R	FA.RD= 000001	FN.SFI= 000032	011 GETQUO= ***** G
BSTPTR= ***** G	CBEMPT 002270R	FA.PWD= 004000	FN.SHD= 000042	011 GETSSQ= ***** G
BS.CLS= 000002	CBESTT 002260R	FA.SEO= 040000	FOSMRS= 001456R	GIVUHL= 005252R
BS.BHIL= 000004	CF.B0 = 000070	FA.SHR= 000040	FO.APD= 000106	GUCULU= 001500R
BS.INA= 000000	CF.B2 = 000067	FA.TMP= 000020	FO.MFY= 000002	GOTOTS= 003246R
BS.OPRI= 000001	CF.B4 = 000066	FA.WCK= 020000	FO.RD= 000001	GRIDOR= 004774R
BS.SRU= 000003	CF.B6 = 000065	FA.WRT= 000002	FO.UPD= 000006	GSMDRE= 003560R
BTCHCL= 003150P	CF.DR0= 000064	FD.BLK= 000010	FO.WRT= 000016	GSRECR= 004272R
BYTE0 = 000000	CF.DR1= 000063	FD.CCL= 000002	F.ACTL= 000076	GTCSDS= 003302R
BYTE1 = 000001	CHSTAT= ***** G	FD.COM= 020000	F.ALOC= 000040	G.TICP= 000016
BYTE2 = 000002	CH.AND= 000001	FD.CR= 000002	F.BBFS= 000062	G.TICT= 000014
BYTE3 = 000003	CLSAXB 003734R	FD.DIR= 000010	F.BDB= 000070	G.TIDA= 000004
BYTE4 = 000004	CMDDBU 002224R	FD.FID= 000000	003 F.BGBC= 000057	G.TIHP= 000006
BYTE5 = 000005	CMDORY 002234R	FD.FNB= 000006	003 F.BKDN= 000026	G.TIMI= 000010
BYTE6 = 000006	CNDP 004576R	FD.FTH= 000001	F.BKDS= 000020	G.TINO= 000002
BYTE7 = 000007	COLUN= 000006	FD.FYR= 000004	003 F.BKEF= 000050	G.TISC= 000012
BYTE8 = 000010	COMSG 006622R	FD.FI1= 040000	F.BKP1= 000051	G.TIYR= 000000
BYTE9 = 000011	CONTRP 005306R	FD.INS= 000010	F.BKST= 000024	HLHBCR= 001116R
BYTVAL= 000012	CRASH 004600R	FD.ISP= 002000	F.BKVB= 000064	HLHBCR= 001010R
B.BSTA= 000054	010 CSGOIN 001236R	FD.LEN= 000010	003 F.CHR= 000075	HLMECL= 003220R
B.CNTX= 000046	010 CSPGMD 001632R	FD.MHT= 100000	F.CNTG= 000034	HLTCLS= 001100R
B.COUD= 000060	010 CSXDIN 002246R	FD.OSP= 004000	F.DFNB= 000046	HSTSHD= 005576R
B.FEMA= 000132	010 CTLOBE 001302R	FD.PLC= 000004	F.DSPT= 000044	HSTSRG= 005570R
B.FEMB= 000142	010 DATSSQ 000152R	FD.PRN= 000004	F.DVNM= 000000	
B.FEMC= 000152	010 DBCRSP 001512R	FD.PSE= 010000	F.EFBK= 000010	
B.FFSB= 000202	010 DBMRSP 001676R	FD.RAH= 000001	F.EFN= 000050	

MDBUDN-004734R	N.PKTS-000043	SGISIN-002336R	STTINT-002602R	UN.NXT-000006	012
MDBUGO-004654R	N.QURY-000031	SHRTCL-000534R	ST.ASZ-000020	006 UN.POT-000002	012
MNINDX-005420R	N.STAT-000020	SINGLO-002552R	ST.BSZ-000024	006 UN.SIZ-000010	012
MRGFDG-004034R	N.SUHT-000002	SMDBUR-000620R	ST.BTC-000000	006 UN.SRC-000000	012
MRGORY-003012R	N.UNI1-000034	SPRDN-002654R	ST.CSZ-000030	006 UN.TYP-000001	012
MRGUHL-003066R	UNHDES-001032R	SRECP-000000	ST.HRL-000010	006 WORD0-000000	
MSGHUP-004760R	UNXBT-001214R	SR.ARE-000114	002 ST.LEN-000044	006 WORD1-000002	
MSG1-000574R	PARJEM-006334R	SR.APS-000106	002 ST.ORY-000002	006 WORD2-000004	
MSG1L-0000024	PARJEM-000055	SR.DAY-000010	002 ST.OSZ-000034	006 WORD3-000006	
MSG1T-000576R	PRBUHL-002664R	SP.DLT-000014	002 ST.SCH-000040	006 WORD4-000010	
MSG2-006722R	PRMSG-007134R	SR.ECB-000047	002 ST.UHL-000004	006 WORD5-000012	
MSG2L-0000022	PUTFRE-000000	SR.ECH-000046	002 ST.XLT-000014	006 WORD6-000014	
MSG2T-006724R	PUTOUT-000000	SR.ECL-000050	002 SUINDX-000000	WORD7-000016	
MSG3-006746R	PUTSSO-000000	SP.FIB-000012	002 SUST-000000	WORD8-000020	
MSG3L-0000020	OF.R01-000144	SR.GRE-000100	002 SU.DBU-000004	WORD9-000022	
MSG3T-006750R	OTABCR-002030R	SR.GRS-000072	002 SU.DON-000006	WRAPUP-004366R	
N-0000002	OTABTP-001764R	SR.LEN-000122	002 SU.IDL-000000	WRDVAL-000024	
NB.DCV-000200	QTSRSP-001162R	SR.LIN-000066	002 SU.LOD-000001	WRTSPL-006770R	
NB.DIR-000100	QTGRSP-000726R	SR.LIP-000062	002 SU.SRC-000002	WSPCGO-001654R	
NB.NAM-000004	QTOTCL-001064R	SP.MON-000006	002 SU.SRR-000005	WTSFOS-001412R	
NB.SU1-000400	QUVEMP-002214R	SR.NDC-000042	002 SU.XPD-000003	WTSXRC-001566R	
NB.SU2-001000	QUQENE-000566R	SR.NDS-000036	002 SXPDIN-003712R	WTSXPD-001346R	
NB.SNM-000040	Q.FDSC-000004	007 SR.NIN-000030	002 SYSFLG-000000	XBATCH-000013	
NB.STP-000020	Q.NOBK-000000	007 SR.NIP-000032	002 S.FATT-000016	XBLDIA-000004	
NB.SVR-000010	Q.NUHL-000002	007 SR.SDB-000032	002 S.FDB-000140	XDBPRO-000012	
NB.TYP-000002	Q.SIZE-000014	007 SR.SRC-000002	002 S.FHAM-000006	XDINCIN-000006	
NB.YER-000001	REPRCD-005142R	SR.SUN-000000	002 S.FNB-000036	XFOHMR-000007	
NEXTT-000006R	REORY-006432R	SR.TWS-000056	002 S.FNBW-000017	XGTSRE-000014	
NOTIME-000040R	RLSLOK-000000	SR.WSL-000052	002 S.FNTY-000004	XHITSK-000011	
NXBCSH-004436R	RNBIGQ-001742R	SR.YR-000004	002 S.FITY-000002	XHLMER-000002	
NXTBIN-002300R	KPRHLM-002140R	SR.IIN-000024	002 S.HRL-000024	XHOTSK-000010	
NXTENT-000174R	RPRDTH-002116R	SR.IIP-000016	002 S.NFEN-000020	XHSCHS-000000	
NXTORP-005210R	RDLRPR-005200R	SSOMAT-000242R	TAQRPR-002564R	XQTS-000003	
N.BFAC-000004	RDMDBP-003126R	SSRCIN-004344R	TIMAST-007152R	XQT0-000001	
N.BIGH-000006	RDMTRI-005006R	SSULOD-003670R	TOPNOD-000452R	XSLDIA-000005	
N.BTCH-000004	RUNSCH-005504R	SSUXDN-002644R	TRACE-006052R	ADDIV-000000	
N.BUFB-004000	RUNTSK-005322R	SS.FID-000002	TRCISO-006064R	APPG-000002	
N.BUFW-002000	RUNXTS-003316R	SS.FNB-000010	TRCLUN-000004	POST-000020	
N.DID-000004	R.FIX-000001	SS.FVR-000006	TRUE-002204R	ST2-000000	
N.DYHM-000032	R.SEQ-000003	SS.LEN-000012	TSIDND-000332R	CLOSE-000000	
N.FID-000000	R.VAR-000002	SS.STT-000000	TULOU-002636R	DLFIB-000000	
N.FHAM-000006	SALORP-002162R	STADND-001402R	UPPBP-000664R	OPFIB-000000	
N.FOS-000004	SCHBUD-004250R	STRHEU-004604R	WAITSG-001260R	UNIT-000000	
N.FTP-000014	SCHNAM-005540R	STRTSC-004150R	WAITSO-000046R	LRITE-000000	
N.FVER-000016	SETACT-003344R	STRTWO-006310R	UN-000000	...GRL-000000	
N.NEAT-000012	SEBLOF-000000	STTENT-000000RG	UN.NTP-000004	012...TPC-000140	
N.PI52-000020	SFOSIN-004012R				
ABS-000000	000				
SRCOFF-000122	001				
FDSCOF-000010	002				
SUSOFF-000012	003				
DHROFF-000012	004				
STTOFF-000014	005				
OSPLOF-000014	006				
ESTOIF-000772	007				
	010				

FNOFFS- 000044 011
UNODOF- 000010 012
DNODOF- 000010 013
ERRORS DETECTED: 0

VIRTUAL-MEMORY-USED: 7295 WORDS- (29 PAGES)
DYNAMIC-MEMORY: 8004 WORDS- (31 PAGES)
ELAPSED-TIME: 00:01:40
STT,STT/-SP=(20.13P.M,STT,STIN,STTD,STTC,STTS,END-

10- 2- MASTER COMPUTER COMMON

```
1      .TITLE- MCOM
2      .SBTTL- MASTER COMPUTER COMMON
3      .PSECT- MCOM
4
5
6      .MCALL- SETF$S,DECL$S
7      .MCALL- ALTP$S,MRKT$S,WTSE$S
8
9      :
10     : STATUS RECORDS
11     :
12     SRECP: :
13     N=0
14     .REPT- N,SUNT
15     .IRP- Z,<\N>
16     .WORD- SREC*Z-          ; ADDRESS OF DATA
17     .ENDR-
18     N=N+1
19     .ENDR-
20     :
21     N=0
22     .REPT- N,SUNT
23     .IRP- Z,<\N>
24     SREC*Z: .BLKW- SR.LEN-          ; DATA FOR SEARCH UNIT
25     .ENDR-
26     N=N+1
27     .ENDR-
28     :
29     : SEARCH UNIT STATUS TABLES
30     :
31     SUINDX: :
32     N=0
33     .REPT- N,SUNT
34     .IRP- Z,<\N>
35     .WORD- SUST*Z-          ; ADDRESS OF DATA
36     .ENDR-
37     N=N+1
38     .ENDR-
39     :
40     :
41     :
42     .WORD- -1          ; BATCH NUMBER BEING SEARCHED IN LOW BYTE
43     : (-1 IF NONE)
44
45     SUST: :
46     N=0
47     .REPT- N,SUNT
48     .IRP- Z,<\N>
49     SUST*Z: .WORD- 0          ; SEARCH UNIT STATUS
50     .BLKW- 3          ; FDSC OF SY0:[300,NJF05,SPL
51     .WORD- FN,SF*Z-
52     .ENDR-
53     N=N+1
54     .ENDR-
55     :
56     : STATISTICS AREA
57     :
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

58 000302.
59 000302.
60 000346
61 000412.
62. 000456
63 000522.
64 000566
65 000632.
66
67
68
69
70 000632. 000000
71 000634
72. 000636
73
74
75
76 000640
77

```

```

STATSS::
CSTAT::.BLKB. ST.LEN. :CURRENT HOUR.
LSTAT::.BLKB. ST.LEN. :CURRENT DAY.
WSTAT::.BLKB. ST.LEN. :CURRENT WEEK.
LSTAT::.BLKB. ST.LEN. :LAST HOUR.
LDSTAT::.BLKB. ST.LEN. :LAST DAY.
LWSTAT::.BLKB. ST.LEN. :LAST WEEK.
STATSE::
;
;
; HRSTAT: CONTROL WORDS.
;
HRSTFG::.WORD. 0 :FLAGS
LDAY::.BLKW. 1 :LAST DAY.
LHOUR::.BLKW. 1 :LAST HOUR.
;
; QUERY: TRANSLATOR STATISTICS.
;
OTSTAT::.BLKW. 32.

```

```

79
80
81
82
83
84 000740
85 000000
86 000002
87
88
89
90
91
92
93
94
95 000000
96 000000
97 000002
98
99
100
101
102
103
104
105
106
107
108

: IN-CORE DHR CONTROL TABLES
: INDEX TABLE
:
SUDHRI:
N=0 : START OF TABLE
M=0 : SU=0
: REPT N,SUNT
: IRP Z,<\N>
: WORD S'Z'DHRC : DHR CONTROL TABLE ADDRESS
: ENDR
N=N+1
: ENDR
: CONTROL TABLES
:
N=0 : SU=0
M=0 : BUFFER NUMBER
: REPT N,SUNT
: IRP Z,<\N>
S'Z'DHRC: : WORD 0 : CONTROL WORD
: WORD N,BUFB*M : FIRST BUFFER
: WORD N,BUFB*(M+1) : SECOND BUFFER
: WORD CF,DR'Z : GLOBAL FLAG
: WORD 0 : DMC IN-SAVE AREA
: ENDR
N=N+1 : NEXT SU
M=M+2 : NEXT BUFFERS
: ENDR
:

```

```
110
111
112
113
114 000770 000000
115
116 000772 000000
117
118
119
120 000774
121
122
123 000000
124 000004
125
126
127
128
129
130
131
132
133
134
135 000000
136 000004
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166

;
;
; BATCH-STATUS-TABLE DATA.
;
SYSFLG:;.WORD 0 ;SYSTEM-WIDE-FLAGS.
;BIT0 - TRACE-SCHEDULER.
;WORD 0 ;NOT-USED.
;
; BATCH-STATUS-TABLE POINTERS.
;
BSTPTR:;
;
N=0
;REPT N,BTCH ;NUMBER-OF-BATCH-STATUS-TABLES.
;IRP Z,<\N>
;
;WORD BST'Z ;BST-ADDRESS.
;
;ENDR-
N=N+2.
;ENDR-
;
;
; BATCH-STATUS-TABLES - BST0, BST1, ETC.
;
N=0
;REPT N,BTCH
;IRP Z,<\N>
;
BST'Z:
;WORD -1 ;START-OF-BST.
;WORD 0 ;SSQ-INTERLOCK.
;WORD +0 ;EMPTY-SSQ-COUNT.
;WORD -2 ;FORWARD-POINTER.
;WORD 0 ;LAST-ENTRY-ON-LIST.
;WORD 0 ;SCHEDULER'S-FDB-ADDRESS.
;BYTE 0 ;SEND-PACKET-MSCHED-COMMAND-SOURCE.
;BLKB 1 ;COMMAND-TYPE.
;BLKW 12 ;DATA.
;WORD 0 ;SCHEDULER-STATUS.
;WORD 0 ;CURRENT/NEXT-NODE.
;BYTE CF,B'Z ;SSQ-FLAG.
;BYTE 0 ;NOT-USED.
;WORD N ;BATCH-NUMBER.
;BYTE 0 ;BATCH-STATE.
;WORD 0 ;BATCH-STATE-STATUS-FLAGS.
;WORD 0 ;QUO-ENTRY-PRESENT-FLAG.
;BLKW 7 ;UNLOADED-QUO-ENTRY.
;WORD 0 ;BATCH-XLATE-TIME.
;WORD 0 ;FSA-SIZE.
;WORD 0 ;FSB-SIZE.
;WORD 0 ;FSC-SIZE.
;WORD 0 ;QLS-SIZE.
;WORD 0.0 ;#-OF-UHL-DOC.
;WORD 0.0 ;#-OF-HRL-DOC.
;WORD 0 ;NUMBER-OF-UNUSED-BLOCKS.
;WORD 0 ;START-BLOCK-OF-PREVIOUS-HRL.MRG.(READ)
;WORD 0 ;START-BLOCK-OF-NEW-HRL.MRG.(WRITE)
```

```

167 .BLKW. N.SUNT. :HRL:SUB-FILES:PER:SEARCH:UNIT:
168 : FILE:DESCRIPTORS:FOR:CONTROL:TABLES:
169 .BLKW. 3 :FDSC:FOR:EMATRIX:EMA:
170 .WORD. FN.EMA:
171 .BLKW. 3 :FDSC:FOR:EMATRIX:EMA:
172 .WORD. FN.EMB:
173 .BLKW. 3 :FDSC:FOR:EMATRIX:EMC:
174 .WORD. FN.EMC:
175 .BLKW. 3 :FDSC:FOR:EMATRIX:QLS:
176 .WORD. FN.QLS:
177 .BLKW. 3 :FDSC:FOR:HRL:MRG:
178 .WORD. FN.MHP:
179 .BLKW. 3 :FDSC:FOR:TDCTA:FSA:
180 .WORD. FN.FSA:
181 .BLKW. 3 :FDSC:FOR:TDCTB:FSA:
182 .WORD. FN.FSB:
183 .BLKW. 3 :FDSC:FOR:TDCTC:FSA:
184 .WORD. FN.FSC:
185 : INPUT:QUERY:ID:MAPPING:AREA:
186 .WORD. 0 :NUMBER:OF:QUERIES:IN:BATCH:SO:FAR:
187 .REPT. N.QUERY:
188 .WORD. 0 :MAP:OID:TO:EQID:
189 .ENDR:
190 : QUERY:SPOOL:FILE:AREA:
191 .REPT. N.QUERY:
192 .WORD. 0 :#:OF:QUERY:BLOCKS:
193 .WORD. 0 :#:OF:UHL:BLOCKS:
194 .BLKW. 3 :FDSC:FOR:QUERY:SPL:
195 .WORD. FN.QUERY:
196 .ENDR:
197 :
198 : END:OF:BST:
199 :
200 .ENDR:
201 N=N+2:
202 .ENDR:
203 :
204 :
205 :

```

```

207
208
209
210
211
212 004754 005020
213 004756 005030
214 004760 005040
215 004762 005050
216 004764 005060
217 004766 005070
218 004770 005100
219 004772 005110
220 004774 005120
221 004776 005130
222 005000 005140
223 005002 005150
224 005004 005160
225 005006 005170
226 005010 005200
227 005012 005210
228 005014 005220
229 005016 005230
230
231
232
233 005020 076643 076450 000000 FSNAM: .RAD50 /TDCTA: FSA/ :FN.FSA
    005026 024171
234 005030 076643 076520 000000 FSNAM: .RAD50 /TDCTB: FSA/ :FN.FSB
    005036 024171
235 005040 076643 076570 000000 FSCNAM: .RAD50 /TDCTC: FSA/ :FN.FSC
    005046 024171
236 005050 020511 077731 113000 OLSNAM: .RAD50 /EMATRIX: OLS/ :FN.OLS
    005056 066063
237 005060 032334 000000 000000 MHRNAM: .RAD50 /HRL MRG/ :FN.MHR
    005066 052027
238 005070 020511 077731 113000 EMANAM: .RAD50 /EMATRIX: EMA/ :FN.EMA
    005076 020511
239 005100 020511 077731 113000 EMBNAM: .RAD50 /EMATRIX: EMB/ :FN.EMB
    005106 020512
240 005110 020511 077731 113000 EMCNAM: .RAD50 /EMATRIX: EMC/ :FN.EMC
    005116 020513
241 005120 066615 072150 000000 QRYNAM: .RAD50 /QUERY: SPL/ :FN.QRY
    005126 074514
242 005130 014545 062240 000000 DBSNAM: .RAD50 /DBUPD: SPL/ :FN.DBS
    005136 074514
243 005140 023753 000000 000000 MFOHAM: .RAD50 /FQS MRG/ :FN.MFO
    005146 052027
244 005150 014545 074264 000000 DBRNAM: .RAD50 /DBRSLT: SPL/ :FN.DBR
    005156 074514
245 005160 023753 000000 000000 SF0NAM: .RAD50 /FQS SPL/ :FN.SF0
    005166 074514
246 005170 023753 000000 000000 SF1NAM: .RAD50 /FQS SPL/ :FN.SF1
    005176 074514
247 005200 014545 062240 000000 DB0NAM: .RAD50 /DBUPD: BCH/ :FN.DB0
    005206 006400
248 005210 014545 062240 000000 DB1NAM: .RAD50 /DBUPD: BCH/ :FN.DB1

```



```

005210 006400
249 005220 015122 000000 000000 DHRNAM: .RAD50 /DHR SPL/ :FN.DHR
005226 074514
250 005230 052073 031314 000000 SHDNAM: .RAD50 /MSCHED SPL/ :FN.SHD
005236 074514

251
252
253
254 005240 005312
255 005242 005312
256 005244 005312
257 005246 005312
258 005250 005312
259 005252 005312
260 005254 005312
261 005256 005312
262 005260 005304
263 005262 005304
264 005264 005304
265 005266 005304
266 005270 005320
267 005272 005326
268 005274 005320
269 005276 005326
270 005300 005304
271 005302 005304
272
273
274
275 005304
276 005312
277 005320
278 005326
279
280
281
282 005334 123 131
283 005336 123 131
284 005340 123 131
285 005342 123 131
286 005344 123 131
287 005346 123 131
288 005350 123 131
289 005352 123 131
290 005354 123 131
291 005356 123 131
292 005360 123 131
293 005362 123 131
294 005364 123 131
295 005366 123 131
296 005370 123 131
297 005372 123 131
298 005374 123 131
299 005376 123 131
300
301
302
  
```

: FILE DIRECTORY FID INDEX:

```

FDINDX: .WORD DIRP75 :FN.FSA
        .WORD DIRP75 :FN.FSB
        .WORD DIRP75 :FN.FSC
        .WORD DIRP75 :FN.OLS
        .WORD DIRP75 :FN.MHR
        .WORD DIRP75 :FN.EMA
        .WORD DIRP75 :FN.EMB
        .WORD DIRP75 :FN.EMC
        .WORD DIRP74 :FN.QRY
        .WORD DIRP74 :FN.DBS
        .WORD DIRP74 :FN.MFO
        .WORD DIRP31 :FN.SF0
        .WORD DIRP32 :FN.SF1
        .WORD DIRP31 :FN.DB0
        .WORD DIRP32 :FN.DB1
        .WORD DIRP74 :FN.DHR
        .WORD DIRP74 :FN.SHD
  
```

: DIRECTORY FID'S:

```

DIRP74::BLKW 3 :SY0:7.43
DIRP75::BLKW 3 :SY0:7.51
DIRP31::BLKW 3 :SY0:300.11
DIRP32::BLKW 3 :SY0:300.21
  
```

: DEVICE NAME INDEX:

```

DVINDX: .ASCII /SY/ :FN.FSA
        .ASCII /SY/ :FN.FSB
        .ASCII /SY/ :FN.FSC
        .ASCII /SY/ :FN.OLS
        .ASCII /SY/ :FN.MHR
        .ASCII /SY/ :FN.EMA
        .ASCII /SY/ :FN.EMB
        .ASCII /SY/ :FN.EMC
        .ASCII /SY/ :FN.QRY
        .ASCII /SY/ :FN.DBS
        .ASCII /SY/ :FN.MFO
        .ASCII /SY/ :FN.DBR
        .ASCII /SY/ :FN.SF0
        .ASCII /SY/ :FN.SF1
        .ASCII /SY/ :FN.DB0
        .ASCII /SY/ :FN.DB1
        .ASCII /SY/ :FN.DHR
        .ASCII /SY/ :FN.SHD
  
```

: DEVICE UNIT INDEX:

:

303	005400	000000	UNINDEX	WORD	0	FN.FSA
304	005402	000000		WORD	0	FN.FSB
305	005404	000000		WORD	0	FN.FSC
306	005406	000000		WORD	0	FN.QLS
307	005410	000000		WORD	0	FN.MHR
308	005412	000000		WORD	0	FN.EHA
309	005414	000000		WORD	0	FN.EHB
310	005416	000000		WORD	0	FN.EMC
311	005420	000000		WORD	0	FN.QRY
312	005422	000000		WORD	0	FN.DBS
313	005424	000000		WORD	0	FN.MFO
314	005426	000000		WORD	0	FN.DBR
315	005430	000000		WORD	0	FN.SF0
316	005432	000000		WORD	0	FN.SF1
317	005434	000000		WORD	0	FN.DB0
318	005436	000000		WORD	0	FN.DB1
319	005440	000000		WORD	0	FN.DHR
320	005442	000000		WORD	0	FN.SHD
321						

```

323
324
325
326
327
328 005444
329 005444
330
331
332
333
334
335
336
337 005444 062700 000102
338 005450 005060 000000
339 005454 005060 000002
340 005460 005060 000004
341 005464 010246
342 005466 016102 004754
343 005472 011260 000006
344 005476 016260 000002 000010
345 005504 016260 000004 000012
346 005512 016260 000006 000014
347 005520 005060 000016
348 005524 005060 000020
349 005530 005060 000022
350 005534 016102 005240
351 005540 011260 000024
352 005546 016260 000026 000028
353 005552 016260 000004 000030
354 005560 016160 005334 000032
355 005566 016160 005400 000034
356 005574 012602
357 005576 162700 000102
358 005602 000207
359
360
361
362
363
364
365
366
367 005604 010146
368 005606 016101 000006
369 005612
370 005616 012601
371 005620 016160 000000 000102
372 005626 016160 000002 000104
373 005634 016160 000004 000120
374 005642 000207
375
376

```

```

;
;
; BUILD FILE NAME BLOCKS IN FDB
;
; MCALL FDOF &L FCSBT$
; FDOF&L
; FCSBT$
;
; BLDNFL - BUILD FILE NAME BLOCK FOR NEW FILE
;
; INPUT: R0 - FDB ADDRESS
; R1 - FILE NUMBER (FN,XXX)
; OUTPUT: ALL REGISTERS PRESERVED
;
BLDNFL: ADD #F.FNB,R0 ;POINT TO FILE NAME BLOCK
CLR N.FID(R0) ;CLEAR FID
CLR N.FID+2(R0)
CLR N.FID+4(R0)
MOV R2,(SP) ;SAVE R2
MOV FNINDX(R1),R2 ;FILE NAME/TYPE ADDRESS
MOV (R2),N.FNAM(R0) ;FILE NAME/TYPE IN FDB
MOV 2(R2),N.FNAM+2(R0)
MOV 4(R2),N.FNAM+4(R0)
MOV 6(R2),N.FTYP(R0)
CLR N.FVER(R0) ;VERSION IS ZERO
CLR N.STAT(R0) ;CLEAR STATUS
CLR N.NEXT(P0) ;CLEAR WILD CARD WORD
MOV FDINDX(R1),R2 ;DIRECTORY FID ADDRESS
MOV (R2),N.DID(R0) ;DIRECTORY FID IN FDB
MOV 2(R2),N.DID+2(R0)
MOV 4(R2),N.DID+4(R0)
MOV DVINDX(R1),N.DVNM(R0) ;DEVICE NAME
MOV UNINDX(R1),N.UNIT(R0) ;DEVICE UNIT
MOV (SP)+,R2 ;RESTORE R2
SUB #F.FNB,R0 ;RESTORE R0
RTS PC ;RETURN
;
;
; BLDEFL - BUILD FILE NAME BLOCK FOR EXISTING FILE
;
; INPUT: R0 - FDB ADDRESS
; R1 - FILE DESCRIPTOR ADDRESS
; OUTPUT: ALL REGISTERS PRESERVED
;
BLDEFL: MOV R1,(SP) ;SAVE FDSC ADDRESS
MOV FD.FNB(R1),R1 ;GET FILE # FROM FDSC
CALL BLDNFL ;BUILD SKELETON FILE NAME BLOCK
MOV (SP)+,R1 ;RESTORE FDSC ADDRESS
MOV FD.FID(R1),F.FNB+N.FID(R0) ;ADD FID TO FILE NAME BLOCK
MOV FD.FID+2(R1),F.FNB+N.FID+2(R0)
MOV FD.FVER(R1),F.FNB+N.FVER(R0) ;ADD VERSION
RTS PC ;RETURN
;
;

```

```
378
379
380
381
382
383
384 005644 177777
385 005646 000043
386 005650 005654
387 005652 006714
388
389
390
391
392 005654
393 000042
394
395
396
397 006714 005650
398 006716
399
400
401
402 006734 177777
403 006736 000000
404 006740 006740
405 006742 006740
406
407

:
: PACKET POOL AND HEAD CELLS
:
:
: FREE PACKET LIST HEAD CELLS
:
: WORD -1 : INTERLOCK
NFPREP: WORD N.PKTS : COUNT
PKTFRE: WORD PKTSTT : FORWARD
: WORD PKTEND : LAST
:
:
: PACKET POOL
:
PKTSTT: : START OF POOL
: REPT N.PKTS-1
: WORD N.PKSZ : FORWARD LINK
: BLKB N.PKSZ-2
: ENDR
: WORD PKTFRE : LAST PACKET - POINT TO HEAD CELL
PKTEND: BLKB N.PKSZ-2
:
:
:
: QUD HEAD CELL
: WORD -1 : INTERLOCK
: WORD 0 : COUNT
QUCHED: WORD +0 : FORWARD
: WORD -2 : LAST
:
:
```

```

409
410
411
412
413
414
415
416
417
418
419
420
421
422 006744
423 006746 012703 005650*
424 006752 005763 177776
425 006756 001002
426 006760
427
428 006764
429 006770
430 006772 000207
431
432
433
434
435
436
437
438 006774
439 006776 012703 005650*
440 007002
441 007006
442 007010 000207
443
444
445
446
447
448
449
450
451
452 007012 016765 177720 000056
453 007020 001431
454
455 007022
456 007024
457 007026 012703 006740*
458 007032
459 007036 062702 000002
460 007042 062705 000060
461 007046 012225
462 007050 012225
463 007052 012225
464 007054 012225
465 007056 012225

;
;
; PACKET HANDLING ROUTINES - ALL SAVE AND RESTORE REGISTERS
;
; - ALL ARE RE-ENTRANT
;
; - ALL "PUT" ROUTINES RANGE-CHECK PACKET ADDRESS
;
; - PUTSSQ CHECKS FOR VALID COMMAND CODE
;
;
; GET FREE PACKET FROM TOP OF FREE LIST
;
; INPUT - NONE
;
; OUTPUT - R2 - ADDRESS OF PACKET
;
;
GETFRE: SAVE R3
MOV #PKTFRE,R3 ;HEAD CELL ADDRESS
TST -2(R3) ;BRANCH IF NOT
BNE 1$ ; EMPTY
CALL PKTERR
;
1$: CALL GETTOP ;DEQUEUE FROM TOP
RESTOR R3
RTS PC
;
;
; PUT FREE PACKET ON BOTTOM OF FREE LIST
;
; INPUT - R2 - ADDRESS OF PACKET
;
; OUTPUT - NONE
;
;
PUTFRE: SAVE R3
MOV #PKTFRE,R3 ;HEAD CELL ADDRESS
CALL PUTBOT ;QUEUE TO BOTTOM
RESTOR R3
RTS PC
;
;
; GET TOP QUQ ENTRY
;
; INPUT - R5 - BST ADDRESS
;
; OUTPUT - PACKET UNLOADED - B,QUQP - # 0
;
; B,COUQ - 7 WORDS OF DATA
;
; NO PACKET TO UNLOAD - B,QUQP - # 0
;
;
GETQUQ: MOV QUQHD-2,B,QUQP(R5) ;BRANCH IF
BEQ 1$ ; QUQ EMPTY
;
;
; SAVE R2 ;SAVE WORD REG
;
; SAVE P3
;
; MOV #QUQHD,R3 ;ADDRESS OF QUQ HEAD
;
; CALL GETTOP ;GET TOP ENTRY
;
; ADD #2,R2 ;MOVE DATA TO BST
;
; ADD #B,COUQ,R5
;
; MOV (R2)+,(R5)+
;
; MOV (R2)+,(R5)+
;
; MOV (R2)+,(R5)+
;
; MOV (R2)+,(R5)+
;
; MOV (R2)+,(R5)+

```

```

466 007060 012225      MOV.    (R2)+,(R5)+
467 007062 011215      MOV.    (R2),(R5)
468 007064 162702 000016  SUB.    #14,(R2)      ;RESTORE PACKET ADDRESS-
469 007070 162705 000074  SUB.    #8,CQUO+12,(R5) ;RESTORE BST ADDRESS-
470 007074          CALL.  PUTFRE.      ;RETURN PACKET-
471 007100          RESTOR. R3
472 007102          RESTOR. R2
473
474 007104 000207      1$:    RTS.    PC.      ;RETURN-
475
476
477      ; PUT QUO ENTRY ON TOP/BOTTOM OF QUO-
478
479      ; INPUT - R2 = QUO PACKET ADDRESS-
480      ; OUTPUT - NONE-
481
482 007106      PUTOUTB:SAVE. R3
483 007110 012703 006740*  MOV.    #QUOHEA,R3      ;QUO HEAD CELL-
484 007114          CALL.  PUTBOT.      ;QUEUE TO BOTTOM-
485 007120 000405          BR.      PQUOCM-
486
487 007122      PUTOUT:SAVE. R3
488 007124 012703 006740*  MOV.    #QUOHEA,R3      ;QUO HEAD CELL-
489 007130          CALL.  PUTTOP.      ;QUEUE TO TOP-
490
491 007134 022763 000001 177776 PQUOCM: CMP.  #1,-2(R3)      ;HAS Q GONE NON-EMPTY?-
492 007140 001014          BNE.    1$      ;NO-
493
494      ;PUT SSQ ENTRY IN FOR OPEN BATCH-
495      ;SAVE R2-
496 007146          CALL.  GETFRE.      ;GET A PACKET-
497 007152 112762 000000 000002 MOV.    #XMSCHED,2(R2)    ;SSQ NON EMPTY -
498 007160 112762 000004 000003 MOV.    #4,3(R2)          ;COMMAND-
499 007166          CALL.  PUTSSQ      ;QUEUE TO OPEN BATCH SCHEDULER-
500 007172          PESTOR. R2
501 007174          PESTOR. R3
502 007176 000207      1$:    RTS.    PC-
503
504
505      ; GET TOP ENTRY FROM THE SSQ-
506
507      ; INPUT - R3 = BST ADDRESS-
508      ; OUTPUT - R2 = SSQ PACKET ADDRESS-
509      ; OR 0 IF SSQ EMPTY-
510
511 007200 016302 000002      GETSSQ:MOV.  0,SSQ-2(R3),R2 ;BRANCH IF -
512 007204 001406          BEQ.    1$      ;SSQ EMPTY-
513
514 007206 062703 000004          ADD.    #0,SSQ,R3      ;POINT TO SSQ-
515 007212          CALL.  GETTOP.      ;DEQUEUE TOP ENTRY
516 007216 162703 000004          SUB.    #0,SSQ,P3      ;RESTORE R3
517 007222 000207      1$:    RTS.    PC-
518
519
520      ; PUT ENTRY ON BOTTOM OF SSQ-
521      ; BATCH NUMBER EITHER SPECIFIED IN PACKET (LOCATION 16) COMMAND DEPENDENT OR
522      ; OR BATCH NUMBER IS IMPLIED BY COMMAND-
523
524

```

```
533  
534  
535  
536 007224  
537 007226  
538 007232 103003  
539 007234  
530 007240 000417  
531  
532  
533 007242 016303 000774  
534 007246 062703 000004  
535 007252  
536 007256 116303 000044  
537 007262  
538 007272  
539 007300  
540 007302 000207  
541  
542  
: INPUT: - R2: - PACKET ADDRESS  
: OUTPUT: - NONE  
:  
PUTSSQ: :SAVE: R3  
CALL: MAPBNB: :DETERMINE BATCH NUMBER  
BCC: 1$ :GOT BATCH NUMBER  
CALL: PUTFRE :OTHERWISE RELEASE PACKET  
BR: PSSQDN: :DONE  
:  
:GOT A BATCH NUMBER IN R3  
1$: MOV: BSTPTR(R3),R3 :BST ADDRESS  
ADD: #B,SSQ,R3 :SSQ ADDRESS  
CALL: PUTBOT: :PUT PACKET ON SSQ BOTTOM  
MOVB: B,SSQF-B,SSQ(R3),R3 :SCHEDULER EVENT FLAG  
SETF#S: R3 :SET EVENT FLAG  
DECL#S:  
PSSQDN: RESTOR: R3  
RTS: PC  
:  
:
```

```

544
545
546
547
548
549
550
551
552 007304
553 007310
554 007312 012704 007406*
555
556 007316 012403
557 007320 100002
558 007322
559 007326 020362 000002
560 007332 001402
561 007334 005724
562 007336 000767
563
564 007340 011404
565 007342 100404
566 007344 060204
567
568 007346 011403
569 007350
570 007352 000207
571
572
573 007354 012703 000003
574 007360 060303
575
576 007362 016346 000774*
577 007366 062716 000053
578 007372 120436
579 007374 001705
580 007376 162703 000002
581 007402 103367
582 007404 000761
583
584
585
586
587
588
589
590
591
592
593
594
595 007406
596 007410 001 000
597 007412 001 001
598 007414 000004
599 007416 001 003
600 007420 000004

```

```

;
;
; GET BATCH NUMBER FROM PACKET
;
; INPUT - R2 = ADDRESS OF PACKET
; OUTPUT - R3 = BATCH NUMBER AND CARRY CLEAR IF SUCCESS
;           OR CARRY SET IF NO BATCH FOUND FOR COMMAND
MAPBNB: CALL R4          ; RANGE CHECK PACKET ADDRESS
        SAVE R4
        MOV #TBNMAP,R4  ; MAPPING TABLE
;
MAPBLP: MOV (R4)+,R3     ; COMMAND WORD
        BPL 1$          ; NOT END OF TABLE
        CALL PKERR      ; INVALID COMMAND
1$: CMP R3,R2            ; BRANCH IF COMMAND -
        BEQ FNDMAT      ; MATCHES PACKET
        TST (R4)+       ; SKIP WORD IN TABLE
        BR MAPBLP       ; NEXT ENTRY
; FOUND COMMAND MATCH
FNDMAT: MOV (R4),R4      ; BATCH DISPLACEMENT?
        BMI IMPLID      ; NO - BATCH NUMBER IMPLIED
        ADD R2,R4       ; ADDRESS IN PACKET OF BATCH NUMBER
        MOV (R4),R3     ; (CARRY IS CLEAR)
MAPEXT: RESTOR R4       ; BATCH NUMBER
        RTS PC
;
; BATCH NUMBER IS IMPLIED - R4 = BATCH STATE
IMPLID: MOV #NBATCH-1,R3 ; HIGHEST BATCH -
        ADD R3,R3       ; NUMBER
;
IMPLOP: MOV BSTPTR(R3),- (SP) ; BST ADDRESS
        ADD #BSTATE,(SP) ; BATCH STATE ADDRESS
        CMPB R4,0(SP)+ ; BRANCH IF STATES -
        BEQ MAPEXT      ; MATCH (CARRY IS CLEAR)
        SUB #2,R3       ; CONTINUE IF -
        BCC IMPLOP      ; MORE BST'S
        BR MAPEXT       ; NO STATE MATCHES (CARRY IS SET)
;
;
;
; TABLE TO DETERMINE BATCH NUMBER LOCATION IN COMMAND PACKET
;
; FIRST WORD - COMMAND
; SECOND WORD - BIT 15=0 : DISPLACEMENT OF BN IN PACKET
;               BIT 15=1 : BATCH STATE
;
; TABLE TERMINATED BY -1
;
TBNMAP: .BYTE %010.0
        .WORD 4
        .BYTE %010.1
        .WORD 4
        .BYTE %010.3
        .WORD 4

```


601 007422	001	70.	.BYTE	XOT0.4
602 007424	000004		.WORD	4
603 007426	001	005	.BYTE	XOT0.5
604 007430	000004		.WORD	4
605 007432	001	002	.BYTE	XOT0.2
606 007434	000004		.WORD	4
607 007436	001	006	.BYTE	XOT0.6
608 007440	000004		.WORD	4
609 007442	001	007	.BYTE	XOT0.7
610 007444	000004		.WORD	4
611 007446	002	000	.BYTE	XHLMERG.0
612 007450	000004		.WORD	4
613 007452	002	001	.BYTE	XHLMERG.1
614 007454	000004		.WORD	4
615 007456	002	002	.BYTE	XHLMERG.2
616 007460	000004		.WORD	4
617 007462	002	003	.BYTE	XHLMERG.3
618 007464	000004		.WORD	4
619 007466	002	004	.BYTE	XHLMERG.4
620 007470	000004		.WORD	4
621 007472	003	000	.BYTE	XOTS.0
622 007474	000004		.WORD	4
623 007476	003	001	.BYTE	XOTS.1
624 007500	000004		.WORD	4
625 007502	005	000	.BYTE	XSULOAD.0
626 007504	000004		.WORD	4
627 007506	006	000	.BYTE	XDMCIN.0
628 007510	100003		.WORD	BIT15+BS.SRC
629 007512	006	001	.BYTE	XDMCIN.1
630 007514	100003		.WORD	BIT15+BS.SRC
631 007516	006	002	.BYTE	XDMCIN.2
632 007520	100004		.WORD	BIT15+BS.DBU
633 007522	006	003	.BYTE	XDMCIN.3
634 007524	100004		.WORD	BIT15+BS.DBU
635 007526	007	001	.BYTE	XFSMRG.1
636 007530	000004		.WORD	4
637 007532	012	000	.BYTE	XDBPROC.0
638 007534	000004		.WORD	4
639 007536	013	000	.BYTE	XBATCH.0
640 007540	000004		.WORD	4
641 007542	013	001	.BYTE	XBATCH.1
642 007544	100001		.WORD	BIT15+BS.OPN
643 007546	013	002	.BYTE	XBATCH.2
644 007550	100001		.WORD	BIT15+BS.OPN
645 007552	000	000	.BYTE	XMSCHED.0
646 007554	000004		.WORD	4
647 007556	000	001	.BYTE	XMSCHED.1
648 007560	000004		.WORD	4
649 007562	000	002	.BYTE	XMSCHED.2
650 007564	000004		.WORD	4
651 007566	000	004	.BYTE	XMSCHED.4
652 007570	100001		.WORD	BIT15+BS.OPN
653				
654 007572	177777		.WORD	-1
655				
656 007574			.BLKW	10.*2 : SPARE ENTRIES

```

658
659
660
661
662
663
664
665
666
667 007644
668 007650 011302
669 007652 011213
670 007654 005363 177776
671 007660 001002
672 007662 010363 000002
673 007666
674 007672 000207
675
676
677 007674
678 007700
679 007704 010273 000002
680 007710 010263 000002
681 007714 010312
682 007716 005263 177776
683 007722 000761
684
685
686 007724
687 007730
688 007734 011312
689 007736 010213
690 007740 005263 177776
691 007744 022763 000001 177776
692 007752 001345
693 007754 010263 000002
694 007760 000742
695
696
697
698
699
700
701
702
703 007762 005263 177774
704 007766 001001
705 007770 000207
706
707
708 007772 005363 177774
709 007776
710 010014
711 010040
712 010052
713 010066 000735
714

```

```

;
;
; GENERAL QUEUE MANIPULATION ROUTINES
;
; INPUT - R3 = HEAD CELL ADDRESS
; R2 = PACKET ADDRESS IF "PUT"
; OUTPUT - R2 = PACKET ADDRESS IF "GET"
; (QUEUE MUST NOT BE EMPTY ON GET)
;
GETTOP: CALL SEZLOK ;SIEZE INTERLOCK
MOV (R3),R2 ;PACKET ADDRESS
MOV (R2),R3 ;NEW TOP OF LIST
DEC -2(R3) ;ONE LESS PACKET
BNE DONEQ ;QUEUE NOT EMPTY
MOV R3,2(R3) ;LAST POINTS TO FORWARD LINK
DONEQ: CALL PLSLOK ;RELEASE INTERLOCK
RTS PC
;
;
; PUTBOT: CALL SEZLOK ;SIEZE INTERLOCK
CALL RNGPKT ;RANGE CHECK PACKET ADDRESS
MOV R2,02(R3) ;CHAIN NEW PKT TO LIST BOTTOM
MOV R2,2(R3) ;HEAD CELL POINTS TO NEW BOTTOM
MOV R3,(R2) ;NEW PKT POINTS TO F IN HEAD CELL
INC -2(R3) ;INC COUNT
BR DONEQ
;
;
; PUTTOP: CALL SEZLOK ;SIEZE INTERLOCK
CALL RNGPKT ;RANGE CHECK PACKET ADDRESS
MOV (R3),R2 ;CHAIN TOP OF LIST TO NEW PKT
MOV R2,(R3) ;F IN HEAD CELL POINTS TO NEW TOP
INC -2(R3) ;INC COUNT
CMP #1,-2(R3) ;QUEUE GONE NON-EMPTY?
BNE DONEQ ;NO
MOV R2,2(R3) ;YES - B POINTS TO NEW PKT TOO
BR DONEQ
;
;
;
; QUEUE INTERLOCK ROUTINES
;
; INPUT - R3 = HEAD CELL ADDRESS
; OUTPUT - NONE
;
SEZLOK: INC -4(R3) ;SIEZE INTERLOCK
BNE LKFAIL ;DIDN'T GET IT
RTS PC ;GOT IT
;
; FAILED TO GET A LOCK ON THE QUEUE - SOMEONE ELSE MUST HAVE IT
LKFAIL: DEC -4(R3) ;RELEASE OUR LOCK
ALTPS: #4 ;LOWER OUR PRIORITY
MRKTS: #20,#10,#1 ;WAIT A WHILE
WTSE: #20
ALTPS: ;RAISE PRIORITY
BR SEZLOK ;TRY TO SEIZE LOCK AGAIN

```

MCOM: ... M1110 27-MAR-80 14:05 PAGE 12-1
MASTER COMPUTER COMMON

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
715 010070 005363 177774 RLSLOK: DEC -4(R3) ; RELEASE INTEPLOCK
716 010074 000207 RTS PC
717 ;
718 ;
719 ;
720 ; RANGE CHECK PACKET ADDRESS
721 ;
722 ; INPUT - R2 = ADDRESS OF PACKET
723 ; OUTPUT - GOOD: RETURN
724 ; BAD: CRASH
725 ;
726 010076 020227 005654' RNSPKT: CMP R2, #PKTSTT ; LOWEST PACKET
727 010102 103002 BHIS 1$
728 010104 CALL PKTERR
729 010110 020227 006714' 1$: CMP R2, #PKTEND ; HIGHEST PACKET
730 010114 101402 BLOS 2$
731 010116 CALL PKTERR
732 010122 000207 2$: RTS PC
733 ;
734 ;
735 010124 000167 177775 PKTERR: JMP .+1 ; PACKET PROBLEM - CRASH
736 ;
737 ;
738 010130 NCOMSZ:
739 ;
740 000001 .END
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

BITVAL = 000000	B.HRLR 000122	010 FA.EXT = 000004	FN.MHR 000010	011 F.SPUN = 000074
BIT0 = 000001	B.HRLW 000124	010 FA.NSP = 000100	FN.NMB 000044	011 F.STBK = 000036
BIT1 = 000002	B.NMBR 000052	010 FA.POS = 010000	FN.OLS 000006	011 F.UNIT = 000136
BIT10 = 002000	B.NORY 000232	010 FA.PD = 000001	FN.QRY 000020	011 F.URBD = 000020
BIT11 = 004000	B.QLSZ 000106	010 FA.RWD = 004000	FN.SF0 000030	011 F.VBN = 000064
BIT12 = 010000	B.QMAP 000234	010 FA.SEQ = 040000	FN.SF1 000032	011 F.VBSZ = 000060
BIT13 = 020000	B.QSPL 000316	010 FA.SHR = 000040	FN.SHD 000042	011 GETFRE 006744RG 014
BIT14 = 040000	B.QTTM 000076	010 FA.THP = 000020	FO.APD = 000106	GETOUO 007012RG 014
BIT15 = 100000	B.QUQP 000056	010 FA.WCK = 020000	FO.MFY = 000002	GETSSG 007200RG 014
BIT2 = 000004	B.SFDB 000010	010 FA.WRT = 000002	FO.RD = 000001	GETTPO 007644R 014
BIT3 = 000010	B.SIZE 000772	010 FD.INDX 005240R	FO.UDP = 000006	HPSTFG 000632RG 014
BIT4 = 000020	B.SNDP 000012	010 FD.BLK = 000010	FO.WRT = 000016	IMPLID 007354R 014
BIT5 = 000040	B.SSD 000004	010 FD.CCL = 000002	FSANAM 005020R	014 IMPLDP 007362R 014
BIT6 = 000100	B.SSQF 000050	010 FD.COM = 020000	FSBNAM 005030R	014 LDAY 000634RG 014
BIT7 = 000200	B.STAT 000044	010 FD.CR = 000002	FSCNAM 005040R	014 LDSTAT 000522RG 014
BIT8 = 000400	B.STTE 000053	010 FD.DIR = 000010	F.ACTL = 000076	LHOUR 000636RG 014
BIT9 = 001000	B.UDOC 000110	010 FD.FID = 000000	003 F.ALOC = 000040	LHSTAT 000456RG 014
BLDEFL 005604RG	014 CDSTAT 000346RG	014 FD.FNB = 000006	003 F.BBFS = 000062	LKFAIL 007772R 014
BLDNFL 005444RG	014 CF.B0 = 000070	FD.FTN = 000001	F.BDB = 000070	LJSTAT 000566RG 014
BSTPTR 000774RG	014 CF.B2 = 000066	FD.FVR = 000004	003 F.BGBC = 000057	M = 000004
BST0 001004R	014 CF.B4 = 000066	FD.F11 = 040000	F.BKDN = 000026	MAPBLP 007316R 014
BST2 001776R	014 CF.B6 = 000066	FD.INS = 000010	F.BKDS = 000020	MAPBNB 007304R 014
BST4 002770R	014 CF.DR0 = 000064	FD.ISP = 002000	F.BKEF = 000050	MAPEXT 007350R 014
BS16 003762R	014 CF.DR1 = 000063	FD.LEN = 000010	003 F.BKPI = 000051	MCOMS2 010130R 014
BS.CLS = 000002	CHSTAT 000302RG	014 FD.MNT = 100000	F.BKST = 000024	MCONAM 005140R 014
BS.DBU = 000004	CH.AND = 000001	FD.OSP = 004000	F.BKVB = 000064	MHRNAM 005060R 014
BS.INA = 000000	CWSTAT 000412RG	014 FD.PLC = 000004	F.CHR = 000075	N = 000010
BS.OPN = 000001	DBNAM 005150R	014 FD.PRN = 000004	F.CNTG = 000034	NB.DEV = 000200
BS.SRC = 000003	DBSLEN 000116	FD.PSE = 010000	F.DFNB = 000046	NB.DIR = 000100
BYTE0 = 000000	DBSNAM 005130R	014 FD.RAH = 000001	F.DSPT = 000044	NB.NAM = 000004
BYTE1 = 000001	DBNAM 005200R	014 FD.RAN = 000002	F.DVNM = 000134	NB.SD1 = 000400
BYTE2 = 000002	DBINAM 005210R	014 FD.REC = 000001	F.EFBK = 000010	NB.SD2 = 001000
BYTE3 = 000003	DHRNAM 005220R	014 FD.RUM = 000001	F.EFN = 000050	NB.SHM = 000040
BYTE4 = 000004	DH.BF0 000002	005 FD.SD1 = 000020	F.EOBB = 000032	NB.STP = 000020
BYTE5 = 000005	DH.BF1 000004	005 FD.SD2 = 000040	F.ERR = 000052	NB.SVR = 000010
BYTE6 = 000006	DH.CTL 000000	005 FD.TTY = 000004	F.FACC = 000043	NB.TYP = 000002
BYTE7 = 000007	DH.DMC 000010	005 FD.WBH = 000002	F.FFBY = 000014	NB.VER = 000001
BYTE8 = 000010	DH.FLG 000006	005 FF.CHR = 000005	F.FNAM = 000110	NFREEP 005646RG 014
BYTE9 = 000011	DIRP31 005320RG	014 FF.HV = 000003	F.FNB = 000102	N.BFAC = 000004
BYTVAL = 000012	DIRP32 005326RG	014 FF.POE = 000002	F.FTYP = 000116	N.BHGH = 000006
B.BSTA 000054	010 DIRP74 005304RG	014 FF.RWD = 000001	F.FVER = 000120	N.BTCH = 000004
B.CONTX 000046	010 DIRP75 005312RG	014 FF.RWF = 000006	F.HIBK = 000004	N.BUFB = 004000
B.COUD 000060	010 DN.DCK 000000	013 FF.SPC = 000004	F.LUN = 000042	N.BUFL = 002000
B.FEMA 000132	010 DN.NTP 000004	013 FNDMAT 007340R	014 F.MBCT = 000054	N.DID = 000024
B.FEMB 000142	010 DN.NXT 000006	013 FN.INDX 004754R	014 F.MBC1 = 000055	N.DVNM = 000032
B.FEMC 000152	010 DN.ROT 000002	013 FN.DBR 000026	011 F.MBFG = 000056	N.FID = 000000
B.FFSA 000202	010 DN.SIZ 000010	013 FN.DBS 000022	011 F.NRBD = 000024	N.FNAM = 000006
B.FFSB 000212	010 DNEQ 007666R	014 FN.DHR 000040	011 F.NREC = 000030	N.FOS = 000764
B.FFSC 000222	010 DVINDX 005334R	014 FN.EHA 000012	011 F.OVBS = 000030	N.FTYP = 000014
B.FMHR 000172	010 EIANAM 005070R	014 FN.EHB 000014	011 F.RACC = 000016	N.FVER = 000016
B.FQLS 000162	010 ENBNAM 005100R	014 FN.FNC 000016	011 F.RATT = 000001	N.NEXT = 000022
B.FSAZ 000100	010 EICHAM 005110R	014 FN.FSC 000000	011 F.RCHM = 000034	N.NPKS2 = 000020
B.FSB2 000102	010 FA.APD = 000100	FN.FSB 000002	011 F.RCTL = 000017	N.PKTS = 000043
B.FSC2 000104	010 FA.CRE = 000010	FN.FSC 000004	011 F.RSIZ = 000002	N.QURY = 000031
B.HBLK 000120	010 FA.DLK = 001000	FN.LGQ 000034	011 F.RTYP = 000000	N.SAID = 000020
B.HDOC 000114	010 FA.ENP = 100000	FN.LGU 000036	011 F.SEQN = 000100	N.SUNT = 000002
B.HRLP 000126	010 FA.EXL = 002000	FN.MFO 000024	011 F.SPVY = 000072	N.UNIT = 000034

MCOM: M1110 27-MAR-80 14:06 PAGE 18-3
SYMBOL TABLE

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

PKTEND: 006714R	014 SFINAM	005170R	014 SR.WSL	000052	002 SU.DBU	000004	WORD0 = 000000
PKTERR: 010124R	014 SHDNAM	005230R	014 SR.YR	000004	002 SU.DON	000006	WORD1 = 000002
PKTFRE: 005650R	014 SRECP	000000RG	014 SR.IIN	000024	002 SU.IDL	000000	WORD2 = 000004
PKTSTT: 005654R	014 SREC0	000004R	014 SR.IIP	000016	002 SU.LOD	000001	WORD3 = 000006
POUOCH: 007134R	014 SREC1	000126R	014 SS.FID	000002	004 SU.SRC	000002	WORD4 = 000010
PSSODN: 007300R	014 SR.ARE	000114	002 SS.FNB	000010	004 SU.SRR	000005	WORD5 = 000012
PUTBOT: 007674R	014 SR.ARS	000106	002 SS.FVR	000006	004 SU.XPD	000003	WORD6 = 000014
PUTFRE: 00774RG	014 SR.DAY	000010	002 SS.LEN	000012	004 SYSFLG	000770RG	014 WORD7 = 000016
PUTQUB: 007106RG	014 SR.DLT	000014	002 SS.STT	000000	004 S.FATT	000016	WORD8 = 000020
PUTQUT: 007122RG	014 SR.ECB	000047	002 STATSE	000632RG	014 S.FDB	000140	WORD9 = 000022
PUTSSQ: 007224RG	014 SR.ECH	000045	002 STATSS	000302RG	014 S.FNAM	000006	WORD10 = 000024
PUTTQP: 007724R	014 SR.ECL	000050	002 ST.ASZ	000020	006 S.FNB	000036	WORD11 = 000013
QE:ROI = 000144	SR.FIB	000012	002 ST.BSZ	000024	006 S.FNBW	000017	WORD12 = 000004
QLSNAM: 005050R	014 SR.GRE	000100	002 ST.BTC	000000	006 S.FNTY	000004	WORD13 = 000012
QRYNAM: 005120R	014 SR.GRS	000072	002 ST.CSZ	000030	006 S.FTYP	000002	WORD14 = 000006
QTSTAT: 000540RG	014 SR.LEN	000122	002 ST.HRL	000010	006 S.HRL	000240	WORD15 = 000007
QUGHED: 006740R	014 SR.LIN	000066	002 ST.LEN	000044	006 S.NFEN	000020	WORD16 = 000014
Q.FDSC: 000004	007 SR.LIP	000062	002 ST.QPY	000002	006 SODHRC	000744R	014 WHITSK = 000011
Q.NDBK: 000000	007 SR.MDN	000006	002 ST.USZ	000034	006 SIDHRC	000756R	014 XHLMER = 000002
Q.NUHL: 000002	007 SR.NDC	000042	002 ST.SCH	000040	006 TBNMAP	007406R	014 XHOTS = 000010
Q.SIZE: 000014	007 SR.NDS	000036	002 ST.UHL	000004	006 UHINDX	005400R	014 XMSCHE = 000000
RLSL0K: 010070RG	014 SR.NIN	000030	002 ST.XLT	000014	006 UN.NTP	000004	012 XOTS = 000003
RNGPKT: 010076R	014 SR.NIP	000022	002 SUDHRI	000740RG	014 UN.NXT	000006	012 XOTS = 000001
R.FIX = 000001	SR.SDB	000032	002 SUINDX	000250RG	014 UN.ROT	000002	012 XSULOA = 000005
R.SEQ = 000003	SR.SRC	000002	002 SUST	000256RG	014 UN.SIZ	000010	012 \$\$\$APG = 000004
R.VAR = 000002	SR.SUN	000000	002 SUST0	000256R	014 UN.SPC	000000	012 ...GBL = 000000
SEZLOK: 007762RG	014 SR.TWS	000056	002 SUST1	000270R	014 UN.TYP	000001	012 ...TPC = 000140
SF0NAM: 005160R	014						

. ABS. 000000 000
000000 001
SRCOFF: 000122 002
FDSCOF: 000010 003
SUSOFF: 000012 004
DHROFF: 000012 005
STTOFF: 000044 006
QSPLOF: 000014 007
BSTOFF: 000772 010
FNOFFS: 000044 011
UNODOF: 000010 012
DNDODF: 000010 013
MCOM: 010130 014
ERRORS DETECTED: 0

VIRTUAL MEMORY USED: 5944 WORDS (24 PAGES)
DYNAMIC MEMORY: 7028 WORDS (27 PAGES)
ELAPSED TIME: 00:00:57
MCOM, MCOM/SP=P, M, MCOM

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

1
2
3 000000
4
5
6 000000
7
8
9
10 000000
11 000002
12
13
14
15
16
17
18 020000
19
20 000001

; TITLE: DHRCOM
; SBTTL: DHR: BUFFER: COMMON
; PSECT: DHRCOM
;
;
; DHRCOM:
;
; GENERATE DHR: BUFFERS
;
; N=0
; SU: 0
; REPT: N: SUNT
; BLKW: N: BUFW : BUFFER: 0
; BLKW: N: BUFW : BUFFER: 1
; N=N+1
; NEXT: SU
; ENDR
;
; DHRSZ:
;
; .END

```

DHRCOM. M1110 27-MAR-80 14:07
TABLE OF CONTENTS:

10- 2- DHR-BUFFER-COMMON-

BITVAL = 000000	B.FMHR 000172	010 DN.NXT 000006	013 Q.NUHL 000002	007 ST.SCH 000040	006
BIT0 = 000001	B.FQLS 000162	010 DN.ROT 000002	013 Q.SIZE 000014	007 ST.UHL 000004	006
BIT1 = 000002	B.FSAZ 000100	010 DN.SIZ 000010	013 SR.ARE 000114	002 ST.XLT 000014	006
BIT10 = 002000	B.FSBZ 000102	010 FD.FID 000000	003 SR.ARS 000106	002 SU.DBU 000004	
BIT11 = 004000	B.FSCZ 000104	010 FD.FNB 000006	003 SR.DAY 000010	002 SU.DON 000006	
BIT12 = 010000	B.HBLK 000120	010 FD.FVR 000004	003 SR.DLT 000014	002 SU.IDL 000000	
BIT13 = 020000	B.HDOC 000114	010 FD.LEN 000010	003 SR.ECB 000047	002 SU.LOD 000001	
BIT14 = 040000	B.HPLP 000126	010 FN.DBP 000026	011 SR.ECH 000046	002 SU.SRC 000002	
BIT15 = 100000	B.HRLR 000122	010 FN.DBS 000022	011 SR.ECL 000050	002 SU.SRR 000005	
BIT2 = 000004	B.HRLW 000124	010 FN.DHR 000040	011 SR.FIB 000012	002 SU.XPD 000003	
BIT3 = 000010	B.NMBR 000052	010 FN.EMA 000012	011 SR.GRE 000100	002 S.HRL 000240	
BIT4 = 000020	B.NQRY 000232	010 FN.EMB 000014	011 SR.GRS 000072	002 WN.NTP 000004	012
BIT5 = 000040	B.QLSZ 000106	010 FN.ENC 000016	011 SR.LEN 000122	002 WN.NXI 000006	012
BIT6 = 000100	B.QMAP 000234	010 FN.FSA 000000	011 SR.LIN 000066	002 WN.ROT 000002	012
BIT7 = 000200	B.QSPL 000316	010 FN.FSB 000002	011 SR.LIP 000062	002 WN.SIZ 000010	012
BIT8 = 000400	B.QTTM 000076	010 FN.FSC 000004	011 SR.MON 000006	002 WN.SRC 000000	012
BIT9 = 001000	B.QUQP 000056	010 FN.LGO 000034	011 SR.NDC 000042	002 WN.TYP 000001	012
BS.CLS = 000002	B.SFDB 000010	010 FN.LGU 000036	011 SR.NDS 000036	002 WORD0 = 000000	
BS.DBU = 000004	B.SIZE 000772	010 FN.MFO 000024	011 SR.NIN 000030	002 WORD1 = 000002	
BS.INA = 000000	B.SNDP 000012	010 FN.MHR 000010	011 SR.NIP 000022	002 WORD2 = 000004	
BS.OPN = 000001	B.SSQ 000004	010 FN.NMB 000044	011 SR.SDB 000032	002 WORD3 = 000006	
BS.SRC = 000003	B.SSQF 000050	010 FN.QLS 000006	011 SR.SRC 000002	002 WORD4 = 000010	
BYTE0 = 000000	B.STAT 000044	010 FN.QRY 000020	011 SR.SUN 000000	002 WORD5 = 000012	
BYTE1 = 000001	B.STTE 000053	010 FN.ROT 000030	011 SR.TWS 000056	002 WORD6 = 000014	
BYTE2 = 000002	B.UDOC 000110	010 FN.SF1 000032	011 SR.WSL 000052	002 WORD7 = 000016	
BYTE3 = 000003	CF.B0 = 000070	FN.SHD 000042	011 SR.YR 000004	002 WORD8 = 000020	
BYTE4 = 000004	CF.B2 = 000067	M = 000062	SR.IIN 000024	002 WORD9 = 000022	
BYTE5 = 000005	CF.B4 = 000066	N = 000002	SR.IIP 000016	002 WRDVAL = 000024	
BYTE6 = 000006	CF.B6 = 000065	N.BFAC = 000004	SS.FID 000002	004 XBATCH = 000013	
BYTE7 = 000007	CF.DR0 = 000064	N.BHCH = 000006	SS.FNB 000010	004 XDBLOH = 000004	
BYTE8 = 000010	CF.DR1 = 000063	N.BTCH = 000004	SS.FVR 000006	004 XDBPRO = 000012	
BYTE9 = 000011	DBSLEN = 000116	N.BUFB = 004000	SS.LEN 000012	004 XDMCIN = 000006	
BYTVAL = 000012	DHRCOM 000000RG	014 N.BUFW = 002000	SS.STT 000000	004 XFOSHR = 000007	
B.BSTA 000054	010 DHSZ 020000R	014 N.FOS = 000764	ST.ASZ 000020	006 XGTSRE = 000014	
B.CNTX 000046	010 DH.BF0 000002	005 N.PKSZ = 000020	ST.BSZ 000024	006 XHITSK = 000011	
B.CQUQ 000060	010 DH.BF1 000004	005 N.PKTS = 000043	ST.BTC 000000	006 XHLMER = 000002	
B.FEMA 000132	010 DH.CTL 000000	005 N.QURY = 000031	ST.CSZ 000030	006 XHOTSK = 000010	
B.FEMB 000142	010 DH.DMC 000010	005 N.SUNT = 000002	ST.HRL 000010	006 XHSCHS = 000000	
B.FEMC 000152	010 DH.FLG 000006	005 OE.ROT = 000144	ST.LEN 000044	006 XOTS = 000003	
B.FFSA 000202	010 DN.DCK 000000	013 Q.FDSC 000004	007 ST.QRY 000002	006 XOTS = 000001	
B.FFSB 000212	010 DN.NTP 000004	013 Q.NOBC 000000	007 ST.QSZ 000034	006 XSLQA = 000005	
B.FFSC 000222	010				

. ABS. 000000 000
 000000 001
 SRCOFF 000122 002
 FDSOFF 000010 003
 SUSOFF 000012 004
 DHROFF 000012 005
 STTOFF 000044 006
 QSPLOF 000014 007
 BSTOFF 000772 010
 FNOFFS 000044 011
 UNDOFF 000010 012
 DNDOFF 000010 013
 DHRCOM 020000 014
 ERRORS DETECTED: 0

DHRCOM: MACRO: M1110 27-MAR-80 14:07 PAGE: 10-2
SYMBOL: TABLE

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

VIRTUAL MEMORY USED: 2031 WORDS (8 PAGES)
DYNAMIC MEMORY: 2004 WORDS (10 PAGES)
ELAPSED TIME: 00:00:13
DHRCOM, DHRCOM/-SP=P, M, DHRCOM

.MAIN: MACRO M1110 27-MAR-80 13:54 PAGE 1

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

2

.NLIST ME

```

3      ; P.MAC - SYSTEM-WIDE PREFIX FILE.
4      ;
5      ;
6      ;
7      000012.      .RADIX 10.
8      ;
9      ; BIT DEFINITIONS.
10     ;
11     .MACRO BITDEF X.
12     BIT X = BITVAL      ; SYMBOL SUBSTITUTE = BIT POSITION.
13     .NLIST
14     N = N+1.
15     BITVAL = BITVAL*2.   ; SINGLE BIT LEFT SHIFT ONE.
16     .LIST
17     .ENDM BITDEF.
18     N = 0
19     000000      ; BIT '0'
20     000001      BITVAL = 1      ; BIT 0 IS ONE.
21     000020      .REPT 16.
22     BITDEF \N.          ; MACRO CALL, PASS CHARACTER
23     .ENDM
24     ;
25     ; WORD ADDRESS OFFSET DEFINITIONS.
26     ;
27     .MACRO WORDOFF X.
28     .NLIST
29     WORD X = WRDVAL      ; SYMBOL SUBSTITUTE = OCTAL VALUE.
30     N = N+1              ; INCREMENT 'X'
31     WRDVAL = WRDVAL + 2
32     .LIST
33     .ENDM WORDOFF.
34     N = 0
35     000000      WRDVAL = 0
36     000012.      .REPT 10.
37     .NLIST
38     WORDOFF \N.          ; MACRO CALL, PASS CHARACTER
39     .LIST
40     .ENDM
41     ;
42     ; BYTE ADDRESS OFFSET DEFINITIONS.
43     ;
44     .MACRO BYTEOFF X.
45     .NLIST
46     BYTE X = BYTVAL      ; SYMBOL SUBSTITUTE = OCTAL VALUE.
47     N = N+1              ; INCREMENT 'X'
48     BYTVAL = BYTVAL+1
49     .LIST
50     .ENDM BYTEOFF.
51     N = 0
52     000000      BYTVAL = 0
53     000012.      .REPT 10.
54     .NLIST
55     BYTEOFF \N.          ; MACRO CALL, PASS CHARACTER
56     .LIST
57     .ENDM
58     000010      .RADIX 8.

```

```

59      .MCALL CALL
60      ;
61      ; RETURN FROM SUBROUTINE -- PC LINKAGE
62      ;
63      .MACRO RTN
64      RTS      PC
65      .ENDM RTN
66      ;
67      ; EXIT A SUBROUTINE
68      .MACRO EXIT SUBR
69      RTS      PC
70      .ENDM EXIT
71      ;
72      ; BRANCH ON ANY TESTED BIT ON -- USED AFTER BIT TEST (BIT OR BITB)
73      .MACRO BON LOC
74      .NLIST
75      BNE      LOC      ; BRANCH IF BIT(S) SET
76      .LIST
77      .ENDM
78      ;
79      ; BRANCH ON ALL TESTED BIT(S) OFF -- USED AFTER BIT TEST (BIT OR BITB)
80      .MACRO BOFF LOC
81      .NLIST
82      BEQ      LOC      ; BRANCH IF BIT(S) NOT SET
83      .LIST
84      .ENDM
85      ;
86      .MACRO SAVE A1,A2,A3,A4,A5,A6
87      .IF NB <A1>
88      MOV      A1,-(SP)
89      .ENDC
90      .IF NB <A2>
91      MOV      A2,-(SP)
92      .ENDC
93      .IF NB <A3>
94      MOV      A3,-(SP)
95      .ENDC
96      .IF NB <A4>
97      MOV      A4,-(SP)
98      .ENDC
99      .IF NB <A5>
100     MOV      A5,-(SP)
101     .ENDC
102     .IF NB <A6>
103     MOV      A6,-(SP)
104     .ENDC
105     .ENDM SAVE
106     .MACRO RESTOR A1,A2,A3,A4,A5,A6
107     .IF NB <A6>
108     MOV      (SP)+,A6
109     .ENDC
110     .IF NB <A5>
111     MOV      (SP)+,A5
112     .ENDC
113     .IF NB <A4>
114     MOV      (SP)+,A4
115     .ENDC

```

```

116      .IF... NB      <A3>
117      MOV... (SP)+,A3
118      .ENDC
119      .IF... NB      <A2>
120      MOV... (SP)+,A2
121      .ENDC
122      .IF... NB      <A1>
123      MOV... (SP)+,A1
124      .ENDC
125      .ENDM RESTOR
126      ;
127      ;
128      ; MESSAGE OUTPUT MACRO
129      ;
130      .MACRO MOUT$S MSG,PAR
131      MOV... MSG,-(SP)
132      .IF... NB      <PAR>
133      MOV... PAR,-(SP)
134      .ENDC
135      .IF... B...    <PAR>
136      CLR... -(SP)
137      .ENDC
138      JSR... PC,MSGOUT
139      ADD... #4,SP
140      .ENDM
141
; PUSH ADDRESS OF ASCIZ STRING
; PUSH ADDRESS OF ARGUMENT BLOCK
; EDIT OUTPUT MSG STRING AND PRINT IT
; RESTORE STACK POINTER

```

```
143 ;
144 ; SYSTEM EQUATES.
145 ;
146 N.BTCH=4 ; MAX. NUMBER OF ACTIVE BATCHES.
147 N.BHGH=<N.BTCH-1>*2 ; HIGH BATCH NUMBER.
148 N.QUERY=25 ; MAX. # OF QUERIES IN A BATCH.
149 N.FDS=500 ; MAX. # OF FDS ENTRIES (DOUBLE WORDS)
150 N.BUFW=1024 ; SIZE OF SYSTEM BUFFERS (WORDS)
151 N.BUFB=N.BUFW*2 ; SIZE OF SYSTEM BUFFERS (BYTES)
152 N.BFAC=N.BUFW/256 ; # OF SECTORS IN SYSTEM BLOCK.
153 N.SUNT=2 ; NUMBER OF SEARCH UNITS.
154 ;
155 ;
156 ; STATUS RECORD OFFSETS--SREC; SREC0; SREC1; ETC.
157 ;
158 ; PSECT SRCOFF,ABS.
159 SR.SUN: .BLKW 1 ; SEARCH UNIT NUMBER.
160 SR.SRC: .BLKW 1 ; SEARCH TIME OF LAST SEARCH (SEC)
161 ; BEGINNING OF DATA BASE STATUS AREA.
162 SR.YR: .BLKW 1 ; YEAR.
163 SR.MON: .BLKW 1 ; MONTH.
164 SR.DAY: .BLKW 1 ; DAY OF DISK INIT.
165 SR.FIB: .BLKW 1 ; FILE IDENTIFICATION BLOCK.
166 SR.DLT: .BLKW 1 ; DELTA FOR INDEX SECTORS REPRESENTED.
167 SR.IIP: .BLKW 2 ; ADDRESS OF FIRST IPR.
168 SR.NIP: .BLKW 1 ; NUMBER OF IPR SECTORS ON DISK.
169 SR.IIN: .BLKW 2 ; ADDRESS OF FIRST INDEX RECORD.
170 SR.NIN: .BLKW 1 ; NUMBER OF INDEX RECORDS ALLOCATED.
171 SR.SDB: .BLKW 2 ; ADDRESS OF START OF DATA BASE.
172 SR.NDS: .BLKW 2 ; NUMBER OF DOCUMENTS AT INIT.
173 SR.NDC: .BLKW 2 ; CURRENT NUMBER OF DOCUMENTS.
174 SR.ECH: .BLKB 1 ; HIGH ORDER ADDRESS OF EOC.
175 SR.ECB: .BLKB 1 ; BYTE INDEX OF EOC.
176 SR.ECL: .BLKW 1 ; LOW ORDER ADDRESS OF EOC.
177 SR.WSL: .BLKW 2 ; WHITE SPACE AFTER EOC.
178 SR.TWS: .BLKW 2 ; TOTAL WHITE SPACE.
179 SR.LIP: .BLKW 2 ; ADDRESS OF LATEST APR.
180 SR.LIN: .BLKW 2 ; ADDRESS OF LATEST IR.
181 SR.GRS: .BLKW 3 ; GIVEN START DOC ID.
182 SR.GRE: .BLKW 3 ; GIVEN END DOC ID.
183 SR.ARS: .BLKW 3 ; CURRENT START DOC ID.
184 SR.ARE: .BLKW 3 ; CURRENT END DOC ID.
185 ;
186 DBSLEN=-SR.YR ; LENGTH OF DB STATUS AREA.
187 SR.LEN: ; LENGTH OF STATUS RECORD.
188 ;
189 ;
190 ; FILE DESCRIPTOR OFFSETS.
191 ;
192 ; PSECT FDSOFF,ABS.
193 FD.FID: .BLKW 2 ; FILE ID.
194 FD.FVR: .BLKW 1 ; VERSION NUMBER.
195 FD.FNB: .BLKW 1 ; FILE NUMBER.
196 FD.LEN: ; LENGTH OF FDSC.
197 ;
```

```

2      ;
3      ; M.MAC - MASTER COMPUTER PREFIX FILE
4      ;
5      ;
6      ; MASTER COMPUTER CONSTANTS
7      ;
8      N.PKTS=35.          ;# OF FREE SSQ/QUO PACKETS TO ALLOCATE
9      000043             N.PKSZ=16.          ;SIZE OF PACKET (BYTES)
10     000020             S.HRL=40.*N.BFAC.    ;DEFAULT SIZE OF HRL FILE
11     000240             ;
12     ;
13     ; MASTER SCHEDULER GLOBAL FLAGS
14     ;
15     M=56.
16     000070             N=0
17     000000             .REPT. N.BTCH.
18     000004             .IRP. Z,<\N>
19     CF.B*Z=M.          ;DEFINE FLAG
20     .ENDR.
21     M=M-1
22     N=N+2
23     .ENDR.
24     ;
25     ; IN-CORE DHR GLOBAL FLAGS
26     ;
27     ;
28     000000             M=0
29     000002             .REPT. N.SUNT.
30     .IRP. Z,<\N>
31     CF.DR*Z=M.        ;DEFINE FLAG
32     .ENDR.
33     M=M-1
34     N=N+1
35     .ENDR.
36     ;
37     ;
38     ; MASTER COMPUTER COMMAND SOURCES
39     ;
40     000000             XMSCHED=0
41     000001             XQT0=1
42     000002             XHLMERG=2
43     000003             XQTS=3
44     000004             XDBLOAD=4
45     000005             XSULOAD=5
46     000006             XDMCIN=6
47     000007             XFOSMRG=7
48     000010             XHITSK=8
49     000011             XHITSK=9
50     000012             XDBPROC=10
51     000013             XBATCH=11
52     000014             XGTSREC=12
53     ;
54     ;
55     ; BATCH STATE STATUS FLAGS
56     ;
57     000000             BS.INA=0             ;B.STTE: INACTIVE
58     000001             BS.OPN=1             ; OPEN

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

59      000002      BS.CLS=2      :      CLOSED.
60      000003      BS.SRC=3      :      SEARCH.
61      000004      BS.DBU=4      :      DATA BASE UPDATE.
62      :
63      :
64      : SEARCH UNIT STATUS FLAGS - SUST.
65      :
66      000000      SU.IDL=0      : IDLE.
67      000001      SU.LOD=1      : CONTROL TABLE LOAD IN PROGRESS.
68      000002      SU.SRC=2      : TABLES LOADED - SEARCHING.
69      000003      SU.XPD=3      : SU XX DONE - WAIT FOR FOS.
70      000004      SU.DBU=4      : FOS IN (SEARCH DONE) - DATA BASE UPDATE STARTED.
71      000005      SU.SRR=5      : DBU DONE - STATUS RECORD REQUESTED.
72      000006      SU.DON=6      : STATUS RECORD IN - SEARCH UNIT DONE.
73      :
74      :
75      : SEARCH UNIT STATUS ENTRY OFFSETS.
76      :
77      000000      :PSECT: SUSOFF,ABS.
78      000000      SS.STT: .BLKW 1      : SEARCH UNIT STATUS.
79      000002      SS.FID: .BLKW 2      : FID OF FOS SPL.
80      000006      SS.FVR: .BLKW 1      : VERSION.
81      000010      SS.FNB: .BLKW 1      : FILE NAME.
82      000012      SS.LEN:      : SIZE OF ENTRY.
83      :
84      :
85      : DHR CONTROL WORD OFFSETS.
86      :
87      000000      :PSECT: DHROFF,ABS.
88      000000      DH.CTL: .BLKW 1      : CONTROL WORD.
89      000002      DH.BF0: .BLKW 1      : FIRST BUFFER OFFSET.
90      000004      DH.BF1: .BLKW 1      : SECOND BUFFER OFFSET.
91      000006      DH.FLG: .BLKW 1      : GLOBAL FLAG NUMBER.
92      000010      DH.DMC: .BLKW 1      : DMC IN SAVE AREA.
93      :
94      :
95      : STATISTICS AREA OFFSETS - CHSTAT; CDSTAT; ETC.
96      :
97      000000      :PSECT: STTOFF,ABS.
98      000000      ST.BTC: .BLKW 1      : # OF BATCHES.
99      000002      ST.OPY: .BLKW 1      : QUERIES.
100     000004      ST.UHL: .BLKW 2      : DOC/UHL.
101     000010      ST.HRL: .BLKW 2      : HRL DOC'S.
102     000014      ST.XLT: .BLKW 2      : XLATE TIME (TICKS)
103     000020      ST.ASZ: .BLKW 2      : FSA WORDS.
104     000024      ST.BSZ: .BLKW 2      : FSB WORDS.
105     000030      ST.CSZ: .BLKW 2      : FSC WORDS.
106     000034      ST.OSZ: .BLKW 2      : OLS WORDS.
107     000040      ST.SCH: .BLKW 2      : SEARCH TIME/SU (SEC)
108     000044      ST.LEN:
109     :

```


.MAIN. M1110 27-MAR-80 13:54 PAGE 7

```

111
112
113
114
115 000000
116 000000
117 000002
118 000004
119 000014
120
121
122
123
124
125 000000
126 000000
127 000002
128 000004
129 000006
130 000010
131 000012
132 000044
133 000046
134 000050
135 000051
136 000052
137 000053
138 000054
139 000056
140 000060
141 000076
142 000100
143 000102
144 000104
145 000106
146 000110
147 000114
148 000120
149 000122
150 000124
151 000126
152 000132
153 000142
154 000152
155 000162
156 000172
157 000202
158 000212
159 000222
160 000232
161 000234
162 000316
163 000772
164

;
;
; QUERY SPOOL FILE AREA OF BST OFFSETS
;
;
; PSECT QSPLOF.ABS
Q:NOBK: .BLKW 1 ;NUMBER OF QUERY BLOCKS
Q:NUHL: .BLKW 1 ;NUMBER OF UHL BLOCKS
Q:FDSC: .BLKB FD:LEN: ;FDSC OF QUERY SPL
Q:SIZE: ;SIZE OF QUERY SPOOL FILE AREA
;
;
; BATCH STATUS TABLE OFFSETS TO BST0, BST1, ETC.
;
; PSECT BSTOFF.ABS
;SSQ: .BLKW 1 ;SSQ INTERLOCK
;SSQ: .BLKW 1 ;SSQ ITEM COUNT
;SSQ: .BLKW 1 ;FORWARD LINK
;SSQ: .BLKW 1 ;LAST ENTRY POINTER
B:SFDB: .BLKW 1 ;SCHEDULER'S FDB ADDRESS
B:SNDB: .BLKW 13 ;SEND AREA
B:STAT: .BLKW 1 ;SCHEDULER STATUS FLAG
B:CNTR: .BLKW 1 ;STATE CONTEXT - NEXT/CURRENT NODE
B:SSOF: .BLKB 1 ;SSQ EVENT FLAG NUMBER
;SSOF: .BLKB 1 ;NOT USED
B:NMBR: .BLKB 1 ;BATCH NUMBER
B:STTE: .BLKB 1 ;BATCH STATE
B:BSTA: .BLKW 1 ;BATCH STATE STATUS FLAGS
B:QUOP: .BLKW 1 ;UNLOADED QUO ENTRY PRESENT FLAG
B:CQUO: .BLKW 7 ;CURRENT QUO ENTRY
B:QTTM: .BLKW 1 ;BATCH TRANSLATE TIME (TICKS)
B:FSAZ: .BLKW 1 ;FSA SIZE (WORDS)
B:FSBZ: .BLKW 1 ;FSB SIZE (WORDS)
B:FSCZ: .BLKW 1 ;FSC SIZE (WORDS)
B:QLSZ: .BLKW 1 ;QLS SIZE (WORDS)
B:UDOC: .BLKW 2 ;# OF DOC IN ALL UHL
B:HDOC: .BLKW 2 ;# OF DOC IN HRL
B:HBLK: .BLKW 1 ;# OF UNUSED BLOCKS IN HRL.MRG
B:HRLR: .BLKW 1 ;START BLOCK OF PREVIOUS HRL.MRG (READ)
B:HRLW: .BLKW 1 ;START BLOCK OF NEW HRL.MRG (WRITE)
B:HRLP: .BLKW N,SUNT ;HRL SUB-FILES PER SEARCH UNIT
B:FEMA: .BLKB FD:LEN: ;FDSC FOR EMATRIX.EMA
B:FEMB: .BLKB FD:LEN: ;FDSC FOR EMATRIX.EMB
B:FEMC: .BLKB FD:LEN: ;FDSC FOR EMATRIX.EMC
B:FOLS: .BLKB FD:LEN: ;FDSC FOR EMATRIX.OLS
B:FMHR: .BLKB FD:LEN: ;FDSC FOR HRL.MRG
B:FFSA: .BLKB FD:LEN: ;FDSC FOR TDCTA.FSA
B:FFSB: .BLKB FD:LEN: ;FDSC FOR TDCTB.FSA
B:FFSC: .BLKB FD:LEN: ;FDSC FOR TDCTC.FSA
B:NDRY: .BLKW 1 ;NUMBER OF QUERIES IN BATCH SO FAR
B:QMAP: .BLKW N,QUERY ;MAP QID TO EQID
B:QSP: .BLKB Q:SIZE*N,QUERY ;QUERY SPOOL FILE AREA
B:SIZE: ;LENGTH OF BST
;

```

.MAIN. MACRO.M1110 27-MAR-80 13:54 PAGE:8

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

166		;
167		;
168		; QUERY ERROR CODES.
169		;
170	000144	QE.R01=100. ;RESOURCE OVERFLOW TYPE: 1
171		;

```

173      ;
174      ; FILE NUMBERS
175      ;
176      .PSECT: FNDOFS,ABS:
177      FN.FSA: .BLKW 1      :DP0:[7,5]TDCTA.FSA
178      FN.FSB: .BLKW 1      :DP0:[7,5]TDCTB.FSA
179      FN.FSC: .BLKW 1      :DP0:[7,5]TDCTC.FSA
180      FN.OLS: .BLKW 1      :DP0:[7,5]JEMATRIX.OLS
181      FN.MHR: .BLKW 1      :DP0:[7,5]HRL.MRG
182      FN.EMA: .BLKW 1      :DP0:[7,5]JEMATRIX.EMA
183      FN.EMB: .BLKW 1      :DP0:[7,5]JEMATRIX.EMB
184      FN.EMC: .BLKW 1      :DP0:[7,5]JEMATRIX.EMC
185      FN.GRY: .BLKW 1      :DP0:[7,4]QUERY.SPL
186      FN.DBS: .BLKW 1      :DP0:[7,4]DBUPD.SPL
187      FN.MFO: .BLKW 1      :DP0:[7,4]FOS.MRG
188      FN.DBR: .BLKW 1      :DP0:[7,4]DBRSLT.SPL
189      FN.SF0: .BLKW 1      :DP0:[300,1]FOS.SPL
190      FN.SF1: .BLKW 1      :DP0:[300,2]FOS.SPL
191      FN.LG0: .BLKW 1      :DK1:[7,4]QUERY.SPL
192      FN.LG1: .BLKW 1      :DK1:[7,4]DBUPD.SPL
193      FN.DHR: .BLKW 1      :DP0:[7,4]DHR.SPL
194      FN.SHD: .BLKW 1      :DP0:[7,4]MSCHED.SPL
195      FN.NMB:          :LENGTH OF TABLE
196      ;
197      ;
198      ;
199      ; STATE TRANSITION TABLE OFFSETS
200      ;
201      .PSECT: UNDOF,ABS:      :WAIT NODE
202      UN.SRC: .BLKB 1      :COMMAND SOURCE
203      UN.TYP: .BLKB 1      :COMMAND TYPE
204      UN.ROT: .BLKW 1      :HANDLING ROUTINE
205      UN.NTP: .BLKW 1      :NEXT NODE TYPE
206      UN.NXT: .BLKW 1      :NEXT STATE
207      UN.SIZ:          :SIZE OF NODE ENTRY
208      ;
209      ;
210      .PSECT: DNODOF,ABS:      :DECISION NODE
211      DN.DCK: .BLKW 1      :DECISION CHECK ROUTINE
212      DN.ROT: .BLKW 1      :DECISION SATISFIED ROUTINE
213      DN.NTP: .BLKW 1      :NEXT NODE TYPE
214      DN.NXT: .BLKW 1      :NEXT STATE
215      DN.SIZ:          :SIZE OF NODE ENTRY
216      ;
217      ;

```

.MAIN: MACRO-M1110 27-MAR-80 13:54 PAGE 10

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

219 000000

.PSECT-

.MAIN. MF M1110 27-MAR-80 13:54 PAGE 11

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

1

000001

.END...

BITVAL = 000000	B.FFSC 000222	010 DN.ROT 000002	013 Q.SIZE 000014	007 ST.UHL 000004	006
BIT0 = 000001	B.FMHR 000172	010 DN.SIZ 000010	013 SR.ARE 000114	002 ST.XLT 000014	006
BIT1 = 000002	B.FOLS 000162	010 FD.FID 000000	003 SR.ARS 000106	002 SU.DBU 000004	
BIT10 = 002000	B.FSAZ 000100	010 FD.FNB 000006	003 SR.DAY 000010	002 SU.DOH 000006	
BIT11 = 004000	B.FSBZ 000102	010 FD.FVR 000004	003 SR.DLT 000014	002 SU.IDL 000000	
BIT12 = 010000	B.FSCZ 000104	010 FD.LEN 000010	003 SR.ECB 000047	002 SU.LOD 000001	
BIT13 = 020000	B.HBLK 000120	010 FN.DBR 000026	011 SR.ECH 000046	002 SU.SRC 000002	
BIT14 = 040000	B.HDOC 000114	010 FN.DBS 000022	011 SR.ECL 000050	002 SU.SRR 000005	
BIT15 = 100000	B.HRLP 000126	010 FN.DHR 000040	011 SR.FIB 000012	002 SU.XPD 000003	
BIT2 = 000004	B.HRLR 000122	010 FN.EMA 000012	011 SR.GRE 000100	002 S.HRL 000240	
BIT3 = 000010	B.HRLW 000124	010 FN.EMB 000014	011 SR.GRS 000072	002 WN.NTP 000004	012
BIT4 = 000020	B.NMBR 000052	010 FN.EMC 000016	011 SR.LEN 000122	002 WN.NXT 000006	012
BIT5 = 000040	B.NQRY 000232	010 FN.FSA 000000	011 SR.LIN 000066	002 WN.ROT 000002	012
BIT6 = 000100	B.QLSZ 000106	010 FN.FSB 000002	011 SR.LIP 000062	002 WN.SIZ 000010	012
BIT7 = 000200	B.QMAP 000234	010 FN.FSC 000004	011 SR.MON 000006	002 WN.SRC 000000	012
BIT8 = 000400	B.QSPL 000316	010 FN.LGU 000034	011 SR.NDC 000042	002 WN.TYP 000001	012
BIT9 = 001000	B.QTTM 000076	010 FN.LGU 000036	011 SR.HDS 000036	002 WORD0 000000	
BS.CLS = 000002	B.QUOP 000056	010 FN.MFO 000024	011 SR.NIN 000030	002 WORD1 000002	
BS.DBU = 000004	B.SFDB 000010	010 FN.MHR 000010	011 SR.NIP 000022	002 WORD2 000004	
BS.INA = 000000	B.SIZE 000772	010 FN.MMB 000044	011 SP.SDB 000032	002 WORD3 000006	
BS.OPN = 000001	B.SNDP 000012	010 FN.OLS 000006	011 SR.SPC 000002	002 WORD4 000010	
BS.SRC = 000003	B.SSO 000004	010 FN.QRY 000020	011 SR.SUN 000000	002 WORD5 000012	
BYTE0 = 000000	B.SSQF 000050	010 FN.SFO 000030	011 SR.TWS 000056	002 WORD6 000014	
BYTE1 = 000001	B.STAT 000044	010 FN.SF1 000032	011 SR.WSL 000052	002 WORD7 000016	
BYTE2 = 000002	B.STTE 000053	010 FN.SHD 000042	011 SR.YR 000004	002 WORD8 000020	
BYTE3 = 000003	B.UDOC 000110	010 M = 000062	SR.IIN 000024	002 WORD9 000022	
BYTE4 = 000004	CF.B0 = 000070	N = 000002	SR.IIP 000016	002 WRDVAL 000024	
BYTE5 = 000005	CF.B2 = 000067	N.BFAC = 000004	SS.FID 000002	004 XBATC = 000013	
BYTE6 = 000006	CF.B4 = 000066	N.BHGH = 000006	SS.FNB 000010	004 XDRLOA = 000004	
BYTE7 = 000007	CF.B6 = 000065	N.BTCH = 000004	SS.FVR 000006	004 XDLPRO = 000012	
BYTE8 = 000010	CF.DR0 = 000064	N.BUFB = 004000	SS.LEN 000012	004 XDMCIN = 000006	
BYTE9 = 000011	CF.DR1 = 000063	N.BUFW = 002000	SS.STT 000000	004 XFOSNR = 000007	
BYTVAL = 000012	DBSLEN = 000116	N.FOS = 000764	ST.ASZ 000020	006 XGTSRE = 000014	
B.BSTA 000054	010 DH.BF0 000002	005 N.PKSC = 000020	ST.BSZ 000024	006 XHITSK = 000011	
B.CNTX 000046	010 DH.BF1 000004	005 N.PKTS = 000043	ST.BTC 000000	006 XHLMFP = 000002	
B.COQU 000060	010 DH.CTL 000000	005 N.QURY = 000031	ST.CSZ 000030	006 XHOTSK = 000010	
B.FEMA 000132	010 DH.DMC 000010	005 N.SUNT = 000002	ST.HRL 000010	006 XMSCHE = 000000	
B.FEMB 000142	010 DH.FLG 000006	005 QE.ROI = 000144	ST.LEN 000044	006 XQTS = 000003	
B.FENC 000152	010 DN.DCK 000000	013 Q.FDSC 000004	007 ST.ORY 000002	006 XQT0 = 000001	
B.FFSA 000202	010 DN.NTP 000004	013 Q.NQBK 000000	007 ST.QSZ 000034	006 XSULOQ = 000005	
B.FFSB 000212	010 DN.NXT 000006	013 Q.NUHL 000002	007 ST.SCH 000040	006	
.ABS 000000	000				
SRCOFF 000122	002				
FDSCOF 000010	003				
SUSOFF 000012	004				
DHROFF 000012	005				
STTOFF 000044	006				
QSPLOF 000014	007				
BSTOFF 000772	010				
FNOFFS 000044	011				
UNODOF 000010	012				
DNODOF 000010	013				
ERRORS DETECTED:	0				

.MAIN. MA M1110 27-MAR-80 13:54 PAGE 11-2
SYMBOL TABLE

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

ELAPSED TIME: 00:00:14
M-SP=LIST P.M.END

HOST INPUT (HITSK) MACRO M1110 27-MAR-80 13:26
TABLE OF CONTENTS

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

10-	3	INTRODUCTION
11-	70	MACROS
12-	98	EQUATED SYMBOLS
13-	109	DATA BUFFERS

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

1      .TITLE HOST INPUT TASK (HITSK)
2      .IDENT /01/
3      .SBTTL INTRODUCTION
4
5      ;
6      ; RECEIVE INPUT FROM THE HOST PROCESSOR
7      ;
8      ; THIS TASK IS RESPONSIBLE FOR INPUTTING FILES OF DATA FROM THE
9      ; HOST PROCESSOR AND AND SPOOLING THEM TO THE SYSTEM DISK ON THE
10     ; MASTER COMPUTER. THERE ARE TWO BASIC TYPES OF FILES THAT ARE
11     ; SPOOLED:
12     ;
13     ; 1)      QUERIES AND USER HIT LISTS
14     ; 2)      DATA BASE UPDATE FILES
15     ;
16     ; THE QUERIES AND HITS LISTS ARE SPOOLED TO [7.5]QUERY.SPL AND THE
17     ; DATA BASE UPDATES ARE SPOOLED TO [7.5]DBUPD.SPL
18     ;
19     ; A GIVEN QUERY/HIT LIST TRANSACTION CONTAINS FIRST THE QUERIES AND
20     ; THEN THE HIT LISTS. THESE ARE BOTH PLACED INTO THE SAME FILE BY
21     ; THE "QRY" ROUTINE.
22     ;
23     ; DATA BASE UPDATES CONSISTS OF SEVEN TYPES OF RECORDS. THESE ARE:
24     ;
25     ; 1)      NEW DOCUMENT
26     ; 2)      MODIFY DOCUMENT
27     ; 3)      OVERLAY DOCUMENT
28     ; 4)      ADD DOCUMENT
29     ; 5)      PURGE DOCUMENT
30     ; 6)      READ DOCUMENT
31     ; 7)      DELETE DOCUMENT
32     ;
33     ; THE NEW, MODIFY, OVERLAY, AND ADD DOCUMENT RECORDS ARE HANDLED BY THE
34     ; THE SAME ROUTINE "DOC". THE PURGE, READ AND DELETE DOCUMENT RECORDS
35     ; ARE HANDLED BY THE "PURGE" ROUTINE. THE DATA BASE UPDATE RECORDS HAVE
36     ; BEEN GROUPED INTO BEING PROCESSED BY THESE TWO ROUTINES BECAUSE OF
37     ; THE SIMILARITY OF PROCESSING REQUIREMENTS.
38     ;
39     ; THE GENERAL PROCESSING FLOW IS AS FOLLOWS:
40     ;
41     ; 1)      THE CHANNEL IS INITIALIZED. IF AT ANY TIME AN
42     ;          ERROR IS DETECTED, THE PROCESSING RETURNS TO
43     ;          THIS POINT.
44     ;
45     ; 2)      A FUNCTION IS RECEIVED.
46     ;
47     ; 3)      THE FUNCTION IS PARSED BY THE "PARSE" ROUTINE.
48     ;
49     ; 4)      "DSPCH" IS CALLED TO DETERMINE WHICH ROUTINE
50     ;          IS TO BE CALLED TO PROCESS THE INCOMING FILE.
51     ;
52     ; 5)      THE ROUTINE IS CALLED. WHILE IN THE ROUTINE
53     ;          THE INPUT FILE IS SPOOLED.
54     ;
55     ; 6)      AFTER THE ROUTINE IS FINISHED, THE CHANNEL IS
56     ;          WAIT FOR ANOTHER FUNCTION.
57     ;

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

HOST-INPUT SK (HITSK) MACRO-M1110 27-MAR-80 13:26 PAGE 19-1
INTRODUCTION

Approved For Release 2005/07/21 : CIA-RDP85-00514R000100030001-3

58
59
60
61
62
63
64
65
66
67
68

; DATE WRITTEN: FEB 24, 1979
;
; DATE MODIFIED:
;
; GENERAL REGISTER USAGE:
;
; R5 = BLOCK COUNT
; R4 = OPTIONAL DATA
; R3 = BYTE LENGTH OF EXCHANGE
; R2 = INPUT PACKING MODE
;

```
70      .SBTTL MACROS
71      :
72      : MACROS
73      :
74      .MCALL QIOW$,WRITE$,WAIT$,OFNB$,FINIT$
75      .MCALL FDBDF$,FDRCA$,FDBK$,FSRSZ$,FDOF$A
76      .MCALL CLOSE$,NMBLK$
77      .MACRO MSGSTR,STRING,?L1,?L2
78      .WORD L2-L1
79      .WORD L1
80      L1:
81      .ASCII /STRING/
82      L2:
83      .EVEN
84      .ENDM
85      :
86      :
87      .MACRO ENT,TYPE,ROUTIN,PACK,FID,TXLGT,?L1,?L2
88      L1:
89      .WORD TYPE          :EXCHANGE TYPE
90      .WORD ROUTIN        :ROUTINE TO BE CALLED
91      .WORD PACK          :PACKING MODE
92      .WORD FID           :FILE ID
93      .WORD TXLGT         :BYTE LENGTH OF EXCHANGE
94      L2:
95      TBLSZ$ = L2-L1
96      .ENDM
```

HOST-INPUT-ISK (HITSK) MACRO-M1110 27-MAR-80 13:26 PAGE 12
EQUATED-SYMBOLS.

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

98
99
100
101
102
103
104
105
106
107

000001
000001
000002
000002
000003
000006

.SBTTL EQUATED-SYMBOLS.
:
: EQUATED-SYMBOLS.
:
LUN1 = 1
EF.1 = 1
URT:EF = 2
URT:LU = 2
URT:DK = 3
FUCLEN = 6

:SPOOL-FILE-LUN.
:EXCHANGE-LOG-FILE LUN.
:INPUT-FUNCTION-LENGTH IN BYTES.

```

109          .SBTTL DATA BUFFERS
110          :
111          : DATA BUFFERS
112          :
113          : INPUT DATA BUFFERS
114          :
115          INBUF: .BLKB N.BUFB          : INPUT DATA BUFFER
116          :
117          : MAIN ROUTINE DISPATCH TABLE
118          :
119          TBL: ENT 5.QHL,3.FN,ORY,2048, : QUERY/UHL
120              ENT 6.DOC,3.FN,DBS,2048, : NEW DOCUMENT
121              ENT 7.PURGE,4.FN,DBS,2046, : PURGE DOC
122              ENT 8.DOC,3.FN,DBS,2048, : MODIFY-REPLACE
123              ENT 9.DOC,3.FN,DBS,2048, : MODIFY-OVERLAY
124              ENT 11.PURGE,4.FN,DBS,2046, : READ DOC
125              ENT 13.DOC,3.FN,DBS,2048, : ADD SUB-DOC
126              ENT 14.PURGE,4.FN,DBS,2046, : DELETE SUB-DOC
127              ENT 16.QHL,2.FN,ORY,32, : REQUEST MASS UPDATE
128              ENT 18.QHL,2.FN,DBS,32, : END MASS UPDATE
129              ENT 0.0.0.0
130          :
131          : I/O STATUS BLOCKS
132          :
133          IOSTAT: .BLKW 2 : GET FUNCTION I/O STATUS BLOCK
134          WRSTST: .BLKW 2 : WRITE BLOCK I/O STATUS
135          QIOST: .BLKW 2 : READ INPUT DATA BUFFER I/O STATUS BLOCK
136          :
137          : FLAG TO INDICATE WHETHER DK1 IS ONLINE (LOGFLG = 0), OR
138          : OFFLINE (LOGFLG = 1)
139          :
140          LOGFLG: .WORD 0
141          :
142          : SPOOL FILE CONTROL BLOCK
143          :
144          FDB: FDBDF$
145              FDRCA$ FD,RUM
146              FDBK$A INBUF,N.BUFB,,WRT,EF,WRSTST
147              FDBP$A WRT,LU
148          :
149          : EXCHANGE LOG FILE CONTROL BLOCK
150          :
151          FDBLOG: FDBDF$
152                  FDRCA$ FD,RUM
153                  FDBK$A INBUF,N.BUFB,,WRT,EF,WRSTST
154                  FDBP$A WRT,DK
155          :
156          FSRSZ$ 0
157          :
158          : DUMMY NAMEBLOCK TO GET DIRECTORY FID FOR LOG FILE
159          :
160          LOGNBK: NMBLK$ ,,,DK,1
161          :
162          : FILE NAME/TYPE INDEX
163          :
164          FHINDX: .WORD LGONAM : FN,LGO
165                  .WORD LGUNAM : FN,LGU

```

HOST: INPUT: SK (HITSK) MACRO: M1110 27-MAR-88 13:26 PAGE: 17-1
DATA: BUFFERS:

Approved For Release 2005/07/20 : CIA-RDP85-00514R000100030001-3

```
166 ;
167 004536 066615 072150 000000 LGONAM: .RAD50 /QUERY: SPL/ ;FN:LGO:
      004544 074514
168 004546 014545 062240 000000 LGUNAM: .RAD50 /DBUPD: SPL/ ;FN:LGO:
      004554 074514
169 ;
170 ; DEVICE NAME INDEX:
171 ;
172 004556 104 113 DVINDX: .ASCII /DK/ ;FN:LGO:
173 004560 104 113 .ASCII /DK/ ;FN:LGO:
174 ;
175 ; DEVICE UNIT INDEX:
176 ;
177 004562 000001 UNINDX: .WORD 1 ;FN:LGO:
178 004564 000001 .WORD 1 ;FN:LGO:
179 ;
180 ; DIRECTORY NAME DESCRIPTION
181 ;
182 004566 000005 DIRDS1: .WORD 5
183 004570 004572 .WORD DIRDT1
184 004572 133 067 054 DIRDT1: .ASCII /C7.4/
      004575 064 135
185 ;
186 ;
187 ; DIRECTORY FID:
188 ;
189 004600 DIRK74: .BLKW 3 ;DK1:C7.4/
190 ;
191 ; ERROR MESSAGES:
192 ;
193 004606 RCVERR: MSGSTR <ACC RECEIVE ERROR:=%D, PC:=%D>
194 004652 CPERR: MSGSTR <FILE OPEN ERROR:=%D, PC:=%D>
195 004714 WRTErr: MSGSTR <FILE WRITE ERROR:=%D, PC:=%D>
196 004756 DIR: MSGSTR <DIRECTIVE ERROR:=%D, PC:=%D>
197 005020 IRT: MSGSTR <INVALID RECORD TYPE>
198 005050 CFFLIN: MSGSTR <EXCHANGE LOGGING DEVICE (DK1:) NOT MOUNTED>
199 005126 LOGERR: MSGSTR <LOG DEVICE ERROR:=%D, PC:=%D - LOG DISABLED>
200 ;
201 ; ERROR PARAMETER BUFFER:
202 ;
203 005206 FAR: .BLKW 10.
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

Approved For Release 2005/07/21 : CIA-RDP85-00514R000100030001-3

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

Approved For Release 2005/07/20 : CIA-RDP85-00514R000100030001-3

```

376 005756 005305      DEC.. R5          ;DEC-INPUT BLOCK-COUNT
377 005760 001407      BEQ.. 2$          ;IF-NO-MORE-BLOCKS-CLOSE-AND-EXIT
378 005762
379 005762
380 005766 103407      1$: CALL.. RECEVE.. ;GET-THE-NEXT-BLOCK
381 005770      BCS.. 50$          ;IF-ERROR-DELETE-FILE-AND-EXIT
382 005774 103404      CALL.. WRITE.. ;WRITE-THE-NEXT-BLOCK
383 005776 077507      BCS.. 50$          ;IF-ERROR-DELETE-FILE-AND-EXIT
384 006000      SOB.. R5,1$        ;CONTINUE-UNTIL-ALL-BLOCKS-INPUT
385 006000      2$: CLOSE$      ;ERROR, CLOSE-FILE-AND-EXIT
386 006004 000402      BR.. 99$
387 006006
388 006006      50$: CALL.. .DLFNB.. ;ERROR, DELETE-FILE-AND-EXIT
389 006012
390 006012 000207      99$: RETURN
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405 006014
406 006014 012700 004174' OHL: MOV.. #FDB,R0 ;R0->FILE-CONTROL-BLOCK
407 006020      CALL.. BLDNFL.. ;BUILD-A-FILE-NAME-BLOCK
408 006024      CALL.. OPEN.. ;OPEN-THE-FILE
409 006030 103456      BCS.. 99$          ;IF-ERROR-EXIT
410 006032 160405      SUB.. R4,R5      ;R4=NO-OF-QUERY-BLOCKS, R5=NO-OF-HRL-BLOCKS
411 006034      CALL.. RECEIVE.. ;GET-THE-FIRST-BLOCK
412 006040 103503      BCS.. 50$          ;IF-ERROR-DELETE-THE-FILE-AND-EXIT
413 006042 010467 171734 MOV.. R4,INBUF+2. ;PUT-QUERY-BLOCK-COUNT-INTO-BUFFER
414 006046      CALL.. WRITE.. ;WRITE-THE-BLOCK-TO-THE-SPOOL-FILE
415 006052 103476      BCS.. 50$          ;IF-ERROR-DELETE-THE-FILE-AND-EXIT
416 006054      CALL.. CONVRT.. ;CONVERT-ASCII-01D-TO-BINARY
417 006060 010446      MOV.. R4,-(SP) ;SAVE-R4-AND-R5-FOR-BUILDING-THE...
418 006062 010546      MOV.. R5,-(SP) ;QUO-CONTROL-BLOCK
419 006064 005304      DEC.. R4          ;DEC-INPUT-QUERY-BLOCK-COUNT
420 006066 001407      BEQ.. 2$          ;IF-NO-MORE-QUERY-BLOCKS, GET-HRL'S
421 006070
422 006070      1$: CALL.. RECEVE.. ;GET-NEXT-QUERY-BLOCK
423 006074 103465      BCS.. 50$          ;IF-ERROR-DELETE-FILE-AND-EXIT
424 006076      CALL.. WRITE.. ;WRITE-THE-FILE
425 006102 103462      BCS.. 50$          ;IF-ERROR-DELETE-FILE-AND-EXIT
426 006104 077407      SOB.. R4,1$      ;GO-GET-ANOTHER-QUERY-BLOCK
427 006106
428
429
430
431 006106 005705      2$: INPUT-HRL-BLOCKS
432 006110 003426      TST.. R5          ;ANY-UHL'S?
                     BLE.. 99$          ;NO, EXIT

```

HOST-INPUT THSK- (HITSK) MACRO-M1110 27-MAR-80 13:26 PAGE 14-4
DATA-BUFFERS

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
433 006112 012702 000004      MOV.    #4,R2      ;CHANGE TO PACKING MODE 4
434 006116 012703 003776      MOV.    #2046,,R3   ;R3 = INPUT BLOCK'S BYTE LENGTH
435 006122      CALL.   RECEIVE  ;GET FIRST BLOCK OF HRL'S
436 006126      BCS.    50$      ;IF ERROR, DELETE FILE AND EXIT
437 006130 016767 171646 171642  MOV.    INBUF+2,INBUF ;PUT IN PROPER BLOCK ID
438 006136      CALL.   WRITE    ;WRITE TO THE SPOOL FILE
439 006142 103442      BCS.    50$      ;IF ERROR, DELETE FILE AND EXIT
440 006144 005305      DEC.    R5      ;DEC INPUT HRL BLOCK COUNT
441 006146 001407      BEQ.    99$      ;IF ALL INPUT CLOSE FILE AND EXIT
442 006150
443 006150      3$:      CALL.   RECEIVE  ;GET NEXT HRL BLOCK
444 006154 103435      BCS.    50$      ;IF ERROR, DELETE FILE AND EXIT
445 006156      CALL.   WRITE    ;WRITE BLOCK TO SPOOL FILE
446 006162 103432      BCS.    50$      ;IF ERROR, DELETE FILE AND EXIT
447 006164 077507      SOB.    R5,3$      ;CONTINUE UNTIL ALL BLOCKS INPUT
448 006166
449 006166      99$:      CLOSE$      ;CLOSE FILE
450
451      ;
452      ; BUILD THE CONTROL BLOCK THAT IS SENT TO MSCHED
453
453 006172      CALL.   GETFRE   ;GET A PACKET FROM COMMON
454 006176 012662 000004      MOV.    (SP)+,4,(R2) ;GET THE NO. OF HRL BLOCKS
455 006202 012662 000002      MOV.    (SP)+,2,(R2) ;GET THE NO. OF QRY BLOCKS
456 006206 010162 000006      MOV.    R1,6,(R2)   ;GET THE EQID
457 006212 016062 000102 000010  MOV.    F,FNB+N,FID(R0),8,(R2) ;GET THE FILE ID
458 006220 016062 000104 000012  MOV.    F,FNB+N,FID+2(R0),10,(R2) ;
459 006226 016062 000120 000014  MOV.    F,FNB+N,FVER(R0),12,(R2) ;GET THE FILE VERSION NO
460 006234 012762 000020 000016  MOV.    #FN,QRY,14,(R2) ;GET THE FILE NUMBER
461 006242      CALL.   PUTQUB   ;SEND CONTROL BLOCK TO MSCHED
462 006246 000207      RETURN  ;EXIT
463 006250
464 006250      50$:      CALL.   ,DLFNB  ;DELETE FILE
465      ;
466 006254 000207      MOV.    (SP)+,(SP)+ ;CLEAN UP THE STACK
467      RETURN  ;EXIT
468
469      ;+
470      ;
471      ; ***--RECEIVE ROUTINE
472      ;
473      ; THIS ROUTINE INPUTS A BLOCK FROM THE ACC LINK
474      ;
475      ; INPUTS:
476      ;     GENERAL REGISTER USAGE
477      ;
478      ; OUTPUTS:
479      ;     IF AN ERROR WAS DETECTED THE "C" BIT WILL BE SET, ELSE IT
480      ;     IS CLEARED
481      ;
482      ;-
483      ;
484      ;
485      ;
486      ;
487      ;
488      ;
489      ;
490      ;
491      ;
492      ;
493      ;
494      ;
495      ;
496      ;
497      ;
498      ;
499      ;
500      ;
501      ;
502      ;
503      ;
504      ;
505      ;
506      ;
507      ;
508      ;
509      ;
510      ;
511      ;
512      ;
513      ;
514      ;
515      ;
516      ;
517      ;
518      ;
519      ;
520      ;
521      ;
522      ;
523      ;
524      ;
525      ;
526      ;
527      ;
528      ;
529      ;
530      ;
531      ;
532      ;
533      ;
534      ;
535      ;
536      ;
537      ;
538      ;
539      ;
540      ;
541      ;
542      ;
543      ;
544      ;
545      ;
546      ;
547      ;
548      ;
549      ;
550      ;
551      ;
552      ;
553      ;
554      ;
555      ;
556      ;
557      ;
558      ;
559      ;
560      ;
561      ;
562      ;
563      ;
564      ;
565      ;
566      ;
567      ;
568      ;
569      ;
570      ;
571      ;
572      ;
573      ;
574      ;
575      ;
576      ;
577      ;
578      ;
579      ;
580      ;
581      ;
582      ;
583      ;
584      ;
585      ;
586      ;
587      ;
588      ;
589      ;
590      ;
591      ;
592      ;
593      ;
594      ;
595      ;
596      ;
597      ;
598      ;
599      ;
600      ;
601      ;
602      ;
603      ;
604      ;
605      ;
606      ;
607      ;
608      ;
609      ;
610      ;
611      ;
612      ;
613      ;
614      ;
615      ;
616      ;
617      ;
618      ;
619      ;
620      ;
621      ;
622      ;
623      ;
624      ;
625      ;
626      ;
627      ;
628      ;
629      ;
630      ;
631      ;
632      ;
633      ;
634      ;
635      ;
636      ;
637      ;
638      ;
639      ;
640      ;
641      ;
642      ;
643      ;
644      ;
645      ;
646      ;
647      ;
648      ;
649      ;
650      ;
651      ;
652      ;
653      ;
654      ;
655      ;
656      ;
657      ;
658      ;
659      ;
660      ;
661      ;
662      ;
663      ;
664      ;
665      ;
666      ;
667      ;
668      ;
669      ;
670      ;
671      ;
672      ;
673      ;
674      ;
675      ;
676      ;
677      ;
678      ;
679      ;
680      ;
681      ;
682      ;
683      ;
684      ;
685      ;
686      ;
687      ;
688      ;
689      ;
690      ;
691      ;
692      ;
693      ;
694      ;
695      ;
696      ;
697      ;
698      ;
699      ;
700      ;
701      ;
702      ;
703      ;
704      ;
705      ;
706      ;
707      ;
708      ;
709      ;
710      ;
711      ;
712      ;
713      ;
714      ;
715      ;
716      ;
717      ;
718      ;
719      ;
720      ;
721      ;
722      ;
723      ;
724      ;
725      ;
726      ;
727      ;
728      ;
729      ;
730      ;
731      ;
732      ;
733      ;
734      ;
735      ;
736      ;
737      ;
738      ;
739      ;
740      ;
741      ;
742      ;
743      ;
744      ;
745      ;
746      ;
747      ;
748      ;
749      ;
750      ;
751      ;
752      ;
753      ;
754      ;
755      ;
756      ;
757      ;
758      ;
759      ;
760      ;
761      ;
762      ;
763      ;
764      ;
765      ;
766      ;
767      ;
768      ;
769      ;
770      ;
771      ;
772      ;
773      ;
774      ;
775      ;
776      ;
777      ;
778      ;
779      ;
780      ;
781      ;
782      ;
783      ;
784      ;
785      ;
786      ;
787      ;
788      ;
789      ;
790      ;
791      ;
792      ;
793      ;
794      ;
795      ;
796      ;
797      ;
798      ;
799      ;
800      ;
801      ;
802      ;
803      ;
804      ;
805      ;
806      ;
807      ;
808      ;
809      ;
810      ;
811      ;
812      ;
813      ;
814      ;
815      ;
816      ;
817      ;
818      ;
819      ;
820      ;
821      ;
822      ;
823      ;
824      ;
825      ;
826      ;
827      ;
828      ;
829      ;
830      ;
831      ;
832      ;
833      ;
834      ;
835      ;
836      ;
837      ;
838      ;
839      ;
840      ;
841      ;
842      ;
843      ;
844      ;
845      ;
846      ;
847      ;
848      ;
849      ;
850      ;
851      ;
852      ;
853      ;
854      ;
855      ;
856      ;
857      ;
858      ;
859      ;
860      ;
861      ;
862      ;
863      ;
864      ;
865      ;
866      ;
867      ;
868      ;
869      ;
870      ;
871      ;
872      ;
873      ;
874      ;
875      ;
876      ;
877      ;
878      ;
879      ;
880      ;
881      ;
882      ;
883      ;
884      ;
885      ;
886      ;
887      ;
888      ;
889      ;
890      ;
891      ;
892      ;
893      ;
894      ;
895      ;
896      ;
897      ;
898      ;
899      ;
900      ;
901      ;
902      ;
903      ;
904      ;
905      ;
906      ;
907      ;
908      ;
909      ;
910      ;
911      ;
912      ;
913      ;
914      ;
915      ;
916      ;
917      ;
918      ;
919      ;
920      ;
921      ;
922      ;
923      ;
924      ;
925      ;
926      ;
927      ;
928      ;
929      ;
930      ;
931      ;
932      ;
933      ;
934      ;
935      ;
936      ;
937      ;
938      ;
939      ;
940      ;
941      ;
942      ;
943      ;
944      ;
945      ;
946      ;
947      ;
948      ;
949      ;
950      ;
951      ;
952      ;
953      ;
954      ;
955      ;
956      ;
957      ;
958      ;
959      ;
960      ;
961      ;
962      ;
963      ;
964      ;
965      ;
966      ;
967      ;
968      ;
969      ;
970      ;
971      ;
972      ;
973      ;
974      ;
975      ;
976      ;
977      ;
978      ;
979      ;
980      ;
981      ;
982      ;
983      ;
984      ;
985      ;
986      ;
987      ;
988      ;
989      ;
990      ;
991      ;
992      ;
993      ;
994      ;
995      ;
996      ;
997      ;
998      ;
999      ;
1000      ;
1001      ;
1002      ;
1003      ;
1004      ;
1005      ;
1006      ;
1007      ;
1008      ;
1009      ;
1010      ;
1011      ;
1012      ;
1013      ;
1014      ;
1015      ;
1016      ;
1017      ;
1018      ;
1019      ;
1020      ;
1021      ;
1022      ;
1023      ;
1024      ;
1025      ;
1026      ;
1027      ;
1028      ;
1029      ;
1030      ;
1031      ;
1032      ;
1033      ;
1034      ;
1035      ;
1036      ;
1037      ;
1038      ;
1039      ;
1040      ;
1041      ;
1042      ;
1043      ;
1044      ;
1045      ;
1046      ;
1047      ;
1048      ;
1049      ;
1050      ;
1051      ;
1052      ;
1053      ;
1054      ;
1055      ;
1056      ;
1057      ;
1058      ;
1059      ;
1060      ;
1061      ;
1062      ;
1063      ;
1064      ;
1065      ;
1066      ;
1067      ;
1068      ;
1069      ;
1070      ;
1071      ;
1072      ;
1073      ;
1074      ;
1075      ;
1076      ;
1077      ;
1078      ;
1079      ;
1080      ;
1081      ;
1082      ;
1083      ;
1084      ;
1085      ;
1086      ;
1087      ;
1088      ;
1089      ;
1090      ;
1091      ;
1092      ;
1093      ;
1094      ;
1095      ;
1096      ;
1097      ;
1098      ;
1099      ;
1100      ;
1101      ;
1102      ;
1103      ;
1104      ;
1105      ;
1106      ;
1107      ;
1108      ;
1109      ;
1110      ;
1111      ;
1112      ;
1113      ;
1114      ;
1115      ;
1116      ;
1117      ;
1118      ;
1119      ;
1120      ;
1121      ;
1122      ;
1123      ;
1124      ;
1125      ;
1126      ;
1127      ;
1128      ;
1129      ;
1130      ;
1131      ;
1132      ;
1133      ;
1134      ;
1135      ;
1136      ;
1137      ;
1138      ;
1139      ;
1140      ;
1141      ;
1142      ;
1143      ;
1144      ;
1145      ;
1146      ;
1147      ;
1148      ;
1149      ;
1150      ;
1151      ;
1152      ;
1153      ;
1154      ;
1155      ;
1156      ;
1157      ;
1158      ;
1159      ;
1160      ;
1161      ;
1162      ;
1163      ;
1164      ;
1165      ;
1166      ;
1167      ;
1168      ;
1169      ;
1170      ;
1171      ;
1172      ;
1173      ;
1174      ;
1175      ;
1176      ;
1177      ;
1178      ;
1179      ;
1180      ;
1181      ;
1182      ;
1183      ;
1184      ;
1185      ;
1186      ;
1187      ;
1188      ;
1189      ;
1190      ;
1191      ;
1192      ;
1193      ;
1194      ;
1195      ;
1196      ;
1197      ;
1198      ;
1199      ;
1200      ;
1201      ;
1202      ;
1203      ;
1204      ;
1205      ;
1206      ;
1207      ;
1208      ;
1209      ;
1210      ;
1211      ;
1212      ;
1213      ;
1214      ;
1215      ;
1216      ;
1217      ;
1218      ;
1219      ;
1220      ;
1221      ;
1222      ;
1223      ;
1224      ;
1225      ;
1226      ;
1227      ;
1228      ;
1229      ;
1230      ;
1231      ;
1232      ;
1233      ;
1234      ;
1235      ;
1236      ;
1237      ;
1238      ;
1239      ;
1240      ;
1241      ;
1242      ;
1243      ;
1244      ;
1245      ;
1246      ;
1247      ;
1248      ;
1249      ;
1250      ;
1251      ;
1252      ;
1253      ;
1254      ;
1255      ;
1256      ;
1257      ;
1258      ;
1259      ;
1260      ;
1261      ;
1262      ;
1263      ;
1264      ;
1265      ;
1266      ;
1267      ;
1268      ;
1269      ;
1270      ;
1271      ;
1272      ;
1273      ;
1274      ;
1275      ;
1276      ;
1277      ;
1278      ;
1279      ;
1280      ;
1281      ;
1282      ;
1283      ;
1284      ;
1285      ;
1286      ;
1287      ;
1288      ;
1289      ;
1290      ;
1291      ;
1292      ;
1293      ;
1294      ;
1295      ;
1296      ;
1297      ;
1298      ;
1299      ;
1300      ;
1301      ;
1302      ;
1303      ;
1304      ;
1305      ;
1306      ;
1307      ;
1308      ;
1309      ;
1310      ;
1311      ;
1312      ;
1313      ;
1314      ;
1315      ;
1316      ;
1317      ;
1318      ;
1319      ;
1320      ;
1321      ;
1322      ;
1323      ;
1324      ;
1325      ;
1326      ;
1327      ;
1328      ;
1329      ;
1330      ;
1331      ;
1332      ;
1333      ;
1334      ;
1335      ;
1336      ;
1337      ;
1338      ;
1339      ;
1340      ;
1341      ;
1342      ;
1343      ;
1344      ;
1345      ;
1346      ;
1347      ;
1348      ;
1349      ;
1350      ;
1351      ;
1352      ;
1353      ;
1354      ;
1355      ;
1356      ;
1357      ;
1358      ;
1359      ;
1360      ;
1361      ;
1362      ;
1363      ;
1364      ;
1365      ;
1366      ;
1367      ;
1368      ;
1369      ;
1370      ;
1371      ;
1372      ;
1373      ;
1374      ;
1375      ;
1376      ;
1377      ;
1378      ;
1379      ;
1380      ;
1381      ;
1382      ;
1383      ;
1384      ;
1385      ;
1386      ;
1387      ;
1388      ;
1389      ;
1390      ;
1391      ;
1392      ;
1393      ;
1394      ;
1395      ;
1396      ;
1397      ;
1398      ;
1399      ;
1400      ;
1401      ;
1402      ;
1403      ;
1404      ;
1405      ;
1406      ;
1407      ;
1408      ;
1409      ;
1410      ;
1411      ;
1412      ;
1413      ;
1414      ;
1415      ;
1416      ;
1417      ;
1418      ;
1419      ;
1420      ;
1421      ;
1422      ;
1423      ;
1424      ;
1425      ;
1426      ;
1427      ;
1428      ;
1429      ;
1430      ;
1431      ;
1432      ;
1433      ;
1434      ;
1435      ;
1436      ;
1437      ;
1438      ;
1439      ;
1440      ;
1441      ;
1442      ;
1443      ;
1444      ;
1445      ;
1446      ;
1447      ;
1448      ;
1449      ;
1450      ;
1451      ;
1452      ;
1453      ;
1454      ;
1455      ;
1456      ;
1457      ;
1458      ;
1459      ;
1460      ;
1461      ;
1462      ;
1463      ;
1464      ;
1465      ;
1466      ;
1467      ;
1468      ;
1469      ;
1470      ;
1471      ;
1472      ;
1473      ;
1474      ;
1475      ;
1476      ;
1477      ;
1478      ;
1479      ;
1480      ;
1481      ;
1482      ;
1483      ;
1484      ;
1485      ;
1486      ;
1487      ;
1488      ;
1489      ;
1490      ;
1491      ;
1492      ;
1493      ;
1494      ;
1495      ;
1496      ;
1497      ;
1498      ;
1499      ;
1500      ;
1501      ;
1502      ;
1503      ;
1504      ;
1505      ;
1506      ;
1507      ;
1508      ;
1509      ;
1510      ;
1511      ;
1512      ;
1513      ;
1514      ;
1515      ;
1516      ;
1517      ;
1518      ;
1519      ;
1520      ;
1521      ;
1522      ;
1523      ;
1524      ;
1525      ;
1526      ;
1527      ;
1528      ;
1529      ;
1530      ;
1531      ;
1532      ;
1533      ;
1534      ;
1535      ;
1536      ;
1537      ;
1538      ;
1539      ;
1540      ;
1541      ;
1542      ;
1543      ;
1544      ;
1545      ;
1546      ;
1547      ;
1548      ;
1549      ;
1550      ;
1551      ;
1552      ;
1553      ;
1554      ;
1555      ;
1556      ;
1557      ;
1558      ;
1559      ;
1560      ;
1561      ;
1562      ;
1563      ;
1564      ;
1565      ;
1566      ;
1567      ;
1568      ;
1569      ;
1570      ;
1571      ;
1572      ;
1573      ;
1574      ;
1575      ;
1576      ;
1577      ;
1578      ;
1579      ;
1580      ;
1581      ;
1582      ;
1583      ;
1584      ;
1585      ;
1586      ;
1587      ;
1588      ;
1589      ;
1590      ;
1591      ;
1592      ;
1593      ;
1594      ;
1595      ;
1596      ;
1597      ;
1598      ;
1599      ;
1600      ;
1601      ;
1602      ;
1603      ;
1604      ;
1605      ;
1606      ;
1607      ;
1608      ;
1609      ;
1610      ;
1611      ;
1612      ;
1613      ;
1614      ;
1615      ;
1616      ;
1617      ;
1618      ;
1619      ;
1620      ;
1621      ;
1622      ;
1623      ;
1624      ;
1625      ;
1626      ;
1627      ;
1628      ;
1629      ;
1630      ;
1631      ;
1632      ;
1633      ;
1634      ;
1635      ;
1636      ;
1637      ;
1638      ;
1639      ;
1640      ;
1641      ;
1642      ;
1643      ;
1644      ;
1645      ;
1646      ;
1647      ;
1648      ;
1649      ;
1650      ;
1651      ;
1652      ;
1653      ;
1654      ;
1655      ;
1656      ;
1657      ;
1658      ;
1659      ;
1660      ;
1661      ;
1662      ;
1663      ;
1664      ;
1665      ;
1666      ;
1667      ;
1668      ;
1669      ;
1670      ;
1671      ;
1672      ;
1673      ;
1674      ;
1675      ;
1676      ;
1677      ;
1678      ;
1679      ;
1680      ;
1681      ;
1682      ;
1683      ;
1684      ;
1685      ;
1686      ;
1687      ;
1688      ;
1689      ;
1690      ;
1691      ;
1692      ;
1693      ;
1694      ;
1695      ;
1696      ;
1697      ;
1698      ;
1699      ;
1700      ;
1701      ;
1702      ;
1703      ;
1704      ;
1705      ;
1706      ;
1707      ;
1708      ;
1709      ;
1710      ;
1711      ;
1712      ;
1713      ;
1714      ;
1715      ;
1716      ;
1717      ;
1718      ;
1719      ;
1720      ;
1721      ;
1722      ;
1723      ;
1724      ;
1725      ;
1726      ;
1727      ;
1728      ;
1729      ;
1730      ;
1731      ;
1732      ;
1733      ;
1734      ;
1735      ;
1736      ;
1737      ;
1738      ;
1739      ;
1740      ;
1741      ;
1742      ;
1743      ;
1744      ;
1745      ;
1746      ;
1747      ;
1748      ;
1749      ;
1750      ;
1751      ;
1752      ;
1753      ;
1754      ;
1755      ;
1756      ;
1757      ;
1758      ;
1759      ;
1760      ;
1761      ;
1762      ;
1763      ;
1764      ;
1765      ;
1766      ;
1767      ;
1768      ;
1769      ;
1770      ;
1771      ;
1772      ;
1773      ;
1774      ;
1775      ;
1776      ;
1777      ;
1778      ;
1779      ;
1780      ;
1781      ;
1782      ;
1783      ;
1784      ;
1785      ;
1786      ;
1787      ;
1788      ;
1789      ;
1790      ;
1791      ;
1792      ;
1793      ;
1794      ;
1795      ;
1796      ;
1797      ;
1798      ;
1799      ;
1800      ;
1801      ;
1802      ;
1803      ;
1804      ;
1805      ;
1806      ;
1807      ;
1808      ;
1809      ;
1810      ;
1811      ;
1812      ;
1813      ;
1814      ;
1815      ;
1816      ;
1817      ;
1818      ;
1819      ;
1820      ;
1821      ;
1822      ;
1823      ;
1824      ;
1825      ;
1826      ;
1827      ;
1828      ;
1829      ;
1830      ;
1831      ;
1832      ;
1833      ;
1834      ;
1835      ;
1836      ;
1837      ;
1838      ;
1839      ;
1840      ;
1841      ;
1842      ;
1843      ;
1844      ;
1845      ;
1846      ;
1847      ;
1848      ;
1849      ;
1850      ;
1851      ;
1852      ;
1853      ;
1854      ;
1855      ;
1856      ;
1857      ;
1858      ;
1859      ;
1860      ;
1861      ;
1862      ;
1863      ;
1864      ;
1865      ;
1866      ;
1867      ;
1868      ;
1869      ;
1870      ;
1871      ;
1872      ;
1873      ;
1874      ;
1875      ;
1876      ;
1877      ;
1878      ;
1879      ;
1880      ;
1881      ;
1882      ;
1883      ;
1884      ;
1885      ;
1886      ;
1887      ;
1888      ;
1889      ;
1890      ;
1891      ;
1892      ;
1893      ;
1894      ;
1895      ;
1896      ;
1897      ;
1898      ;
1899      ;
1900      ;
1901      ;
1902      ;
1903      ;
1904      ;
1905      ;
1906      ;
1907      ;
1908      ;
1909      ;
1910      ;
1911      ;
1912      ;
1913      ;
1914      ;
1915      ;
1916      ;
1917      ;
1918      ;
1919      ;
1920      ;
1921      ;
1922      ;
1923      ;
1924      ;
1925      ;
1926      ;
1927      ;
1928      ;
1929      ;
1930      ;
1931      ;
1932      ;
1933      ;
1934      ;
1935      ;
1936      ;
1937      ;
1938      ;
1939      ;
1940      ;
1941      ;
1942      ;
1943      ;
1944      ;
1945      ;
1946      ;
1947      ;
1948      ;
1949      ;
1950      ;
1951      ;
1952      ;
1953      ;
1954      ;
1955      ;
1956      ;
1957      ;
1958      ;
1959      ;
1960      ;
1961      ;
1962      ;
1963      ;
1964      ;
1965      ;
1966      ;
1967      ;
1968      ;
1969      ;
1970      ;
1971      ;
1972      ;
1973      ;
1974      ;
1975      ;
1976      ;
1977      ;
1978      ;
1979      ;
1980      ;
1981      ;
1982      ;
1983      ;
1984      ;
1985      ;
1986      ;
1987      ;
1988      ;
1989      ;
1990      ;
1991      ;
1992      ;
1993      ;
1994      ;
1995      ;
1996      ;
1997      ;
1998      ;
1999      ;
2000      ;
2001      ;
2002      ;
2003      ;
2004      ;
2005      ;
2006      ;
2007      ;
2008      ;
2009      ;
2010      ;
2011      ;
2012      ;
2013      ;
2014      ;
2015      ;
2016      ;
2017      ;
2018      ;
2019      ;
2020      ;
2021      ;
2022      ;
2023      ;
2024      ;
2025      ;
2026      ;
2027      ;
2028      ;
2029      ;
2030      ;
2031      ;
2032      ;
2033      ;
2034      ;
2035      ;
2036      ;
2037      ;
2038      ;
2039      ;
2040      ;
2041      ;
2042      ;
2043      ;
2044      ;
2045      ;
2046      ;
2047      ;
2048      ;
2049      ;
2050      ;
2051      ;
2052      ;
2053      ;
2054      ;
2055      ;
2056      ;
2057      ;
2058      ;
2059      ;
2060      ;
2061      ;
2062      ;
2063      ;
2064      ;
2065      ;
2066      ;
2067      ;
2068      ;
2069      ;
2070      ;
2071      ;
2072      ;
2073      ;
2074      ;
2075      ;
2076      ;
2077      ;
2078      ;
2079      ;
2080      ;
2081      ;
2082      ;
2083      ;
2084      ;
2085      ;
2086      ;
2087      ;
2088      ;
2089      ;
2090      ;
2091      ;
2092      ;
2093      ;
2094      ;
2095      ;
2096      ;
2097      ;
2098      ;
2099      ;
2100      ;
2101      ;
2102      ;
2103      ;
2104      ;
2105      ;
2106      ;
2107      ;
2108      ;
2109      ;
2110      ;
2111      ;
2112      ;
2113      ;
2114      ;
2115      ;
2116      ;
2117      ;
2118      ;
2119      ;
2120      ;
2121      ;
2122      ;
2123      ;
2124      ;
2125      ;
2126      ;

```

```

MOUT$S. #RCVERR, #PAR.      ; ISSUE ERROR MSG.
SEC.
BR      99$

90$:   CLC.

99$:   MOV.      (SP)+, R4      ; RESTORE R4
RETURN.

; +
;
; **--OPEN ROUTINE.
;
; THIS ROUTINE OPENS THE CORRECT SPOOL FILE AND THE CORRECT EXCHANGE
;
; INPUTS:
;      GENERAL REGISTER USAGE, AND R0->FDB.
;
; OUTPUTS:
;      IF ERROR THE "C" BIT IS SET, ELSE IT IS CLEARED.
; -
;
OPEN:  MOV.      R0, -(SP)      ; SAVE R0
MOV.      R4, -(SP)           ; SAVE R4
OFNB$WJ.      ; OPEN FILE FOR WRITTING.
TSTB.      F.ERR(R0)         ; IS THERE AN ERROR?
BLE.       90$               ; NO, RETURN.
TST.       LOGFLG.           ; IS DK1 OFFLINE?
BNE.       93$               ; BRANCH IF YES.

;
; OPEN THE CORRECT EXCHANGE LOG FILE.
;
;
CMP.      R1, #FN. QRY.      ; QUERY ?.
BEQ.      91$               ; BRANCH IF YES.
MOV.      #2, R1             ; DBU LOG FILE.
BR      92$

91$:   MOV.      #0, R1        ; QUERY LOG FILE.
92$:   MOV.      #FDBLOG, P0   ; R0->FDB OF LOG FILE.
CALL.     BLDLOG.            ; BUILD FILENAME BLOCK.
OFNB$WJ.      ; OPEN LOG FILE.
TSTB.      F.ERR(R0)         ; ERROR ?.
BGT.      93$               ; BRANCH IF NO.
INC.      LOGFLG.            ; SHOW DK1 OFFLINE.
MOV.      F.ERR(R0), R4      ; R4 = OPEN ERROR.
MOV.      4(SP), PAR+2.      ; ADD'S OF CALLING ROUTINE.
MOUT$S. #LOGERR, #PAR.
BR      93$

;
90$:   MOV.      F.ERR(R0), R4 ; YES, GET ERROR VALUE.
MOV.      R4, PAR.
MOV.      4(SP), PAR+2.      ; GET ADDR OF CALLING ROUTINE.
MOUT$S. #OPERR, #PAR.      ; ISSUE THE ERROR MESSAGE.
SEC.
BR      99$

93$:   CLC.

94$:

```

547 006620 012604
548 006622 012600
549 006624 000207
550
551
552
553
554
555 006626
556 006626
557
558
559
560
561
562
563

MOV. (SP)+,R4 ;RESTORE R4
MOV. (SP)+,R0 ;RESTORE R0
RETURN.

;

; BUILD-FILE-NAME-BLOCKS-IN-FDB.

;

.MCALL FDOF\$L,FCSBT\$
FDOF\$L
FCSBT\$

;

; BLDNFL-- BUILD-FILE-NAME-BLOCK-FOR-NEW-FILE.

;

; INPUT: R0 - FDB-ADDRESS.
; R1 - FILE-NUMBER (FN,XXX)
; OUTPUT: ALL-REGISTERS-PRESERVED.

;

BLDLOG: ADD. #F,FNB,R0 ;POINT-TO-FILE-NAME-BLOCK.
CLR. N,FID(R0) ;CLEAR-FID.

CLR. N,FID+2(R0)

CLR. N,FID+4(R0)

MOV. R2,-(SP) ;SAVE-R2

MOV. FNINDX(R1),R2 ;FILE-NAME/TYPE-ADDRESS.

MOV. (R2),N,FNAM(R0) ;FILE-NAME/TYPE-IN-FDB.

MOV. 2(R2),N,FNAM+2(R0)

MOV. 4(R2),N,FNAM+4(R0)

MOV. 6(R2),N,FTYP(R0)

CLR. N,FVER(R0) ;VEPSION-IS-ZERO.

CLR. N,STAT(R0) ;CLEAR-STATUS.

CLR. N,NEXT(R0) ;CLEAR-WILD-CARD-WORD.

MOV. #DIRK74,R2 ;R2-> DIRECTORY-FID.

MOV. (R2),N,DID(R0) ;DIRECTORY-FID-IN-FDB.

MOV. 2(R2),N,DID+2(R0)

MOV. 4(R2),N,DID+4(R0)

MOV. DVINDX(R1),N,DVNM(R0) ;DEVICE-NAME.

MOV. UNINDX(R1),N,UNIT(R0) ;DEVICE-UNIT.

MOV. (SP)+,R2 ;RESTORE R2.

SUB. #F,FNB,R0 ;RESTORE R0

RTS. PC. ;RETURN.

;

; **--WRITE-ROUTINE.

;

; THIS-ROUTINE-WRITES-A-BLOCK-OF-DATA-TO-THE-SPOOL-FILE-AND-TO-THE-
; EXCHANGE-LOG-FILE.

;

; INPUTS:
; GENERAL-REGISTER-USAGE-AND-R0->THE-FDB-OF-THE-SPOOL-FILE.

;

; OUTPUTS:
; IF-THERE-IS-AN-ERROR-THE-"C"BIT-IS-SET, ELSE-THE-"C"BIT-IS-
; CLEARED.

;

;

WRITE: MOV. R0,-(SP) ;SAVE-R0
MOV. R4,-(SP) ;SAVE-R4

602 006766 010046
603 006770 010446

```

604 006772. WRITE$ .....DIRERR. ;WRITE THE BLOCK.
605 007004. WAIT$
606 007010. 105767 175146 TST$ WRSTST. ;IS THERE AN ERROR?
607 007014. 003021 BGT$ 90$ ;NO, GO EXIT.
608 007016. 116704 175140 91$: MOV$ WRSTST,R4 ;
609 007022. 010467 176160 MOV$ R4,PAR.
610 007026. 016667 000004 176154 MOV$ 4(SP),PAR+2.
611 007034. MOUT$S. #WRERR,#PAR.
612 007054. 000261 SEC.
613 007056. 000443 BR 99$
614
615 ;
616 ; WRITE TRANSACTION LOG FILE TO DK.
617 007060. 005767 175106 90$: TST$ LOGFLG. ;IS DK1 OFFLINE?
618 007064. 001040 BNE$ 99$ ;BRANCH IF YES.
619 007066. WRITE$ #FDBLOG,.....DIREPR.
620 007104. WAIT$ #FDBLOG.
621 007114. 105767 175042 TST$ WRSTST.
622 007120. 003021 BGT$ 92$ ;BRANCH IF NO ERROR.
623 007122. 005267 175044 INC$ LOGFLG. ;SHOW DK1 OFFLINE.
624 007126. 116704 175030 MOV$ WRSTST,R4 ;R4 = WRITE ERROR.
625 007132. 010467 176050 MOV$ R4,PAR.
626 007136. 016667 000004 176044 MOV$ 4(SP),PAR+2. ;ADD'S OF CALLING ROUTINE.
627 007144. MOUT$S. #LOGERR,#PAR.
628
629 007164. 000241 92$: CLC.
630 007166. 99$:
631 007166. 012604 MOV$ (SP)+,R4
632 007170. 012600 MOV$ (SP)+,R0
633 007172. 000207 RETURN.
634
635 ;+
636 ;
637 ; CONVERT THE ASCII QUEUE ID TO BINARY. THE STRING TO BE CONVERTED IS IN
638 ; THE INPUT BUFFER. A ZERO WORD IS MOVED INTO THE WORD FOLLOWING THE
639 ; 4 ASCII STRING TO TELL THE SYSTEM CONVERSION ROUTINE TO STOP. AFTER
640 ; CONVERSION THE CLEARED WORD IS RESTORED.
641
642 ; INPUTS:
643 ; NONE.
644
645 ; OUTPUTS:
646 ; R1 = THE BINARY VALUE OF THE ASCII NUMERIC STRING.
647
648 ;-
649
650 ;+
651 ;
652 ; CONVRT:
653 MOV$ R0,-(SP)
654 MOV$ R2,-(SP)
655 MOV$ INBUF+0,-(SP) ;SAVE THE TERMINATOR CHARACTERS.
656 MOV$ #INBUF+4,,R0 ;R0->START OF THE STRING.
657 CALL$ SCDTB. ;CONVERT THE STRING TO BINARY.
658 MOV$ (SP)+,INBUF+0. ;RESTORE THE TERMINATOR CHARACTERS.
659 MOV$ (SP)+,R2
660 MOV$ (SP)+,R0
661 RETURN.
662
663 ;+
664 ;

```

```

661      ; **--DIRERR ROUTINE
662      ;
663      ; THIS ROUTINE REPORTS DIRECTIVE ERRORS.
664      ;
665      ; INPUTS:
666      ;     NONE.
667      ;
668      ; OUTPUTS:
669      ;     OUTPUT ERROR MESSAGE.
670      ;
671      ;
672      ;
673 007226      DIRERR:
674 007226      016767      000000G 175752      MOV     $DSW,PAR      ;GET THE DIRECTIVE STATUS ERROR.
675 007234      011667      175750      MOV     (SP),PAR+2      ;GET ADDRESS OF CALLING ROUTINE.
676 007240      MOUT$S      *DIR, #PAR      ;OUTPUT ERROR MESSAGE.
677 007260      000207      RETURN
678      ;
679      ;
680      ; ERROR REPORTING ROUTINE.
681      ;
682      ; INPUTS:
683      ;     NONE.
684      ;
685      ; OUTPUTS:
686      ;     NONE.
687      ;
688      ;
689      ;
690 007262      ERROR:
691 007262      MOUT$S      #IRT      ;REPORT THE ERROR.
692 007300      000207      RETURN
693      ;*****
694      005232      .END      MAIN
    
```

B1VAL = 000000	B.QMAP 000234	010 FDBLOG 004334R	FD.WRT = 000016	IRT 005020R
B10 = 000001	B.QSPL 000316	010 FD.BLK = 000010	FUCLEN = 000006	LGONAM 004536R
B11 = 000002	B.OTTM 000076	010 FD.CCL = 000002	F.ACTL = 000076	LGUNAM 004546R
B110 = 003200	B.GUQP 000056	010 FD.COM = 020000	F.ALOC = 000040	LOGERR 005126R
B111 = 004000	B.SFDB 000010	010 FD.CR = 000002	F.BBFS = 000062	LOGFLG 004172R
B112 = 010000	B.SIZE 000772	010 FD.DIR = 000010	F.BDB = 000070	LOGNBK 004474R
B113 = 020000	B.SNDP 000012	010 FD.FID = 000000	003 F.BGBC = 000057	LUN1 = 000001
B114 = 040000	B.SSQ 000004	010 FD.FNB = 000006	003 F.BKDN = 000026	M = 000062
B115 = 100000	B.SSQF 000050	010 FD.FTN = 000001	F.BKDS = 000020	MAIN 005232R
B12 = 000004	B.STAT 000044	010 FD.FVR = 000004	003 F.BKEF = 000050	MORE 005412R
B13 = 000010	B.STTE 000053	010 FD.F11 = 040000	F.BKP1 = 000051	MSGOUT = ***** GX
B14 = 000020	B.UDOC 000110	010 FD.INS = 000010	F.BKST = 000024	N = 000002
B15 = 000040	CF.B0 = 000070	FD.ISP = 002000	F.BKVB = 000064	NB.DEV = 000200
B16 = 000100	CF.B2 = 000067	FD.LEN = 000010	003 F.CHR = 000075	NB.DIR = 000100
B17 = 000200	CF.B4 = 000066	FD.MNT = 100000	F.CNTG = 000034	NB.NAM = 000004
B18 = 000400	CF.B6 = 000065	FD.OSP = 004000	F.DFNB = 000046	NB.SD1 = 000400
B19 = 001000	CF.DR0 = 000064	FD.PLC = 000004	F.DSPT = 000044	NB.SD2 = 001000
BLDLOG 006626R	CF.DR1 = 000063	FD.PRN = 000004	F.DVNM = 000134	NB.SMT = 000040
BLDNFL = ***** GX	CH.AND = 000001	FD.PSE = 010000	F.EFBK = 000010	NB.STP = 000020
BS.CLS = 000002	CONVRT 007174R	FD.RAH = 000001	F.EFN = 000050	NB.SVR = 000010
BS.DBU = 000004	DBSLEN = 000116	FD.RAN = 000002	F.EOBB = 000032	NB.TYP = 000002
BS.INA = 000000	DH.BF0 000002	005 FD.REC = 000001	F.ERR = 000052	NB.VER = 000001
BS.OPN = 000001	DH.BF1 000004	005 FD.RWM = 000001	F.FACC = 000043	N.BFAC = 000004
BS.SRC = 000003	DH.CTL 000000	005 FD.SDI = 000020	F.FBY = 000014	N.BHGH = 000006
BYTE0 = 000000	DH.DMC 000010	005 FD.SQD = 000040	F.FNAM = 000110	N.BTCH = 000004
BYTE1 = 000001	DH.FLG 000005	005 FD.TTY = 000004	F.FNB = 000102	N.BUFB = 004000
BYTE2 = 000002	DIR 004756R	FD.WBH = 000002	F.FTYP = 000116	N.BUFW = 002000
BYTE3 = 000003	DIRDS1 004566R	FF.CHR = 000005	F.FVER = 000120	N.DID = 000024
BYTE4 = 000004	DIRDT1 004572R	FF.NV = 000003	F.HIBK = 000004	N.DVNM = 000032
BYTE5 = 000005	DIRERR 007226R	FF.POE = 000002	F.LUN = 000042	N.FID = 000000
BYTE6 = 000006	DIRK74 004606R	FF.RWD = 000001	F.MBCT = 000054	N.FNAM = 000006
BYTE7 = 000007	DN.DCK 000000	013 FF.RWD = 000006	F.MBC1 = 000055	N.FOS = 000764
BYTE8 = 000010	DN.NTP 000004	013 FF.SPC = 000004	F.MBFG = 000056	N.FTYP = 000014
BYTE9 = 000011	DN.NMT 000006	013 FNINDX 004532R	F.NRBD = 000024	N.FVER = 000016
BYTVAL = 000012	DN.ROT 000002	013 FN.DBR 000026	011 F.NREC = 000030	N.NEXT = 000022
B.BSTA 000054	010 DN.SIZ 000010	013 FN.DBS 000032	011 F.OVBS = 000030	N.PKSZ = 000020
B.CNTX 000046	010 DOC 005642R	FN.DHR 000040	011 F.RACC = 000016	N.PKTS = 000043
B.COQU 000060	010 DSPTCH 005570R	FN.EMA 000012	011 F.RATT = 000001	N.QUERY = 000031
B.FEMA 000132	010 DVINDX 004556R	FN.EMB 000014	011 F.RCIM = 000034	N.STAT = 000020
B.FEMB 000142	010 EF.1 = 000001	FN.EMC 000016	011 F.PCTL = 000017	N.SUNT = 000002
B.FEMC 000152	010 ERROR 007262R	FN.FSA 000000	011 F.RSIZ = 000002	N.UNIT = 000034
B.FFSA 000202	010 FA.APD = 000100	FN.FSB 000002	011 F.RTYP = 000000	OFFLIN 005050R
B.FFSB 000212	010 FA.CRE = 000010	FN.FSC 000004	011 F.SEQN = 000100	OPEN 006406R
B.FFSC 000222	010 FA.DLK = 001000	FN.LGO 000034	011 F.SPDI = 000072	OPERR 004652R
B.FFMR 000172	010 FA.ENB = 100000	FN.LGU 000036	011 F.SPUH = 000074	PAR 005206R
B.FOLS 000162	010 FA.EXC = 002000	FN.NFO 000024	011 F.STBK = 000036	PARSE 005530R
B.FSAZ 000100	010 FA.EXT = 000004	FN.NHR 000010	011 F.UNIT = 000136	PAR#4 = 000027
B.FSBZ 000102	010 FA.NSP = 000100	FN.NMB 000044	011 F.URBD = 000020	PURGE 005712R
B.FSCZ 000104	010 FA.POS = 010000	FN.QLS 000006	011 F.VBN = 000064	PUTOUB = ***** GX
B.HBLK 000120	010 FA.RD = 000001	FN.QRY 000020	011 F.VBSZ = 000060	OE.R01 = 000144
B.HDOC 000114	010 FA.RUD = 004000	FN.SFO 000030	011 GETFRE = ***** GX	OHL 006014R
B.HRLP 000126	010 FA.SEQ = 040000	FN.SF1 000032	011 INBUF 000000R	Q10ST 004166R
B.HRLR 000122	010 FA.SHR = 000040	FN.SHD 000042	011 INL 005336R	Q.FDSC 000004
B.HRLW 000124	010 FA.THP = 000020	FD.APD = 000106	10STAT 004156R	Q.NGBK 000000
B.NHBR 000052	010 FA.UCK = 020000	FD.MFY = 000002	10.INL = ***** GX	Q.NUHL 000002
B.NORY 000232	010 FA.WRT = 000002	FD.RD = 000001	10.RLB = ***** GX	Q.SIZE 000014
B.QLSZ 000106	010 FDB 004174R	FD.RD = 000006	10.RTC = ***** GX	RCVERR 004606R

HOST-INPUT TASK (HITSK) MACRO-M1110 27-MAR-80 13:26 PAGE 14-10
SYMBOL TABLE

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

RECEVE = 006256R	SP.SUN 000000	002.SU.IDL = 000000	WORD0 = 000000	XHLMER = 000002
R.FIX = 000001	SR.TWS 000056	002.SU.LOD = 000001	WORD1 = 000002	XHITSK = 000010
R.SEQ = 000003	SR.WSL 000052	002.SU.SRC = 000002	WORD2 = 000004	XMSCHE = 000000
R.VAR = 000002	SR.YR 000004	002.SU.SRR = 000005	WORD3 = 000006	XOTS = 000003
SR.ARE 000114	002.SR.1IN 000024	002.SU.XPD = 000003	WORD4 = 000010	XOT0 = 000001
SR.ARS 000106	002.SR.1IP 000016	002.S.BFHD = 000020	WORD5 = 000012	XSULO0 = 000005
SR.DAY 000010	002.SS.FID 000002	004.S.FATT = 000016	WORD6 = 000014	\$CDTB = ***** GX
SR.DLT 000014	002.SS.FNB 000010	004.S.FDB = 000140	WORD7 = 000016	\$DSU = ***** GX
SR.ECB 000047	002.SS.FVR 000006	004.S.FNAM = 000006	WORD8 = 000020	\$\$\$ARG = 000002
SR.ECH 000046	002.SS.LEN 000012	004.S.FNB = 000036	WORD9 = 000022	\$\$\$T1 = 000067
SR.ECL 000050	002.SS.STT 000000	004.S.FNBW = 000017	WRDVAL = 000024	.CLOSE = ***** G
SR.FIB 000012	002.ST.ASZ 000020	006.S.FNTY = 000004	WRITE = 006756R	.DLFNB = ***** GX
SR.GRE 000100	002.ST.BSZ 000024	006.S.FTYP = 000002	WRSTST = 004162R	.FINIT = ***** G
SR.GRS 000072	002.ST.BTC 000000	006.S.HRL = 000240	WRTERR = 004714R	.FSRCB = ***** G
SR.LEN 000122	002.ST.CSZ 000030	006.S.NFEN = 000020	WRT.DK = 000003	.GDIR = ***** GX
SR.LIN 000066	002.ST.HRL 000010	006.TBL = 004000R	WRT.EF = 000002	.OPFNB = ***** G
SR.LIP 000062	002.ST.LEN 000044	006.TBLSZ\$ = 000012	WRT.LU = 000003	.WAIT = ***** G
SR.MON 000006	002.ST.ORY 000002	006.UNINDX = 004562R	XBATCH = 000013	.WRITE = ***** G
SR.NDC 000042	002.ST.OSZ 000034	006.UN.NTP = 000004	012.XDBLOA = 000004	...GBL = 000000
SR.NDS 000036	002.ST.SCH 000040	006.UN.NXT = 000006	012.XDBPRO = 000012	...PC1 = 004334R
SR.NIN 000030	002.ST.UHL 000004	006.UN.ROT = 000002	012.XDNCIN = 000006	...PC2 = 004530R
SR.NIP 000022	002.ST.XLT 000014	006.UN.SIZ = 000010	012.XFOSIR = 000007	...PC3 = 004334R
SR.SDB 000032	002.SU.DBU = 000004	WN.SRC = 000000	012.XGTSRE = 000014	...TPC = 000020
SR.SRC 000002	002.SU.DON = 000006	WN.TYP = 000001	012.XHITSK = 000011	

. ABS. 000000 000
007302 001
SRCOFF 000122 002
FDSOFF 000010 003
SUSOFF 000012 004
DHROFF 000012 005
STTOFF 000044 006
QSPLOF 000014 007
BSTOFF 000772 010
FNOFFS 000044 011
UNDOFF 000010 012
DNDOFF 000010 013
\$\$\$FSR1 000000 014
ERRORS DETECTED: 0

VIRTUAL MEMORY USED: 7316 WORDS (29 PAGES)
DYNAMIC MEMORY: 8084 WORDS (31 PAGES)
ELAPSED TIME: 00:01:06
HITSK, HITSK/SP=C20, 1JP, M, HITSK

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

HOTSK --- HOST OUTPUT TASK
TABLE OF CONTENTS

MACRO-M1110 27-MAR-80 13:27

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

10-	2	INTRODUCTION
11-	153	MAIN ROUTINE
12-	179	RCVFIL ROUTINE
13-	220	SPOOLF
14-	264	NOFILE
15-	295	SDHR
16-	318	DSPTCH ROUTINE
17-	354	STATUS ROUTINE
18-	404	LENGTH ROUTINE
19-	436	OPEN ROUTINE
20-	468	SEND ROUTINE
21-	504	READ ROUTINE
22-	537	DIRERR ROUTINE

HOTSK.-- HOST-OUTPUT TASK.

MACRO-M1110 27-MAR-80 13:27 P. 18

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
.TITLE- HOTSK.-- HOST-OUTPUT TASK.
.SBTTL- INTRODUCTION.
.IDENT- /01/

;+
;
; H-O-S-T- O-U-T-P-U-T- T-A-S-K-
;
; THE PURPOSE OF THIS TASK IS TO SEND DATA (IN-CORE BUFFERS AND SPOOL FILES)
; FROM THE MASTER COMPUTER TO THE HOST SYSTEM. THERE ARE NINE TYPES OF
; DATA THAT IS SENT TO THE HOST SYSTEM:
;
; 1) BATCH CUT-OFF, SPOOL FILE.
; 2) SINGLE BLOCK DOCUMENT HIT REPORTS, IN-CORE.
; 3) MULTI-BLOCK DOCUMENT HIT REPORTS, IN-CORE, SPOOL FILE.
; 4) FLU OCCURRENCE SUMMARY, SPOOL FILE.
; 5) START/STOP QUERIES, IN-CORE.
; 6) DATA BASE ACKNOWLEDGEMENTS, SPOOL FILE.
; 7) RETRIEVED DOCUMENT, SPOOL FILE.
; 8) QUERY ERROR, SPOOL FILE.
; 9) START MASS UPDATE, IN-CORE.
;
; BOTH THE IDENTIFIERS OF SPOOL FILES, AND THE COMMAND BYTES OF THE
; IN-CORE EXCHANGES ARE SENT GIVEN TO HOTSK VIA THE RECEIVE DATA QUEUE.
;
; IF AT ANY TIME THERE IS A LINK ERROR THE LINK WILL BE RESTARTED BY THE
; HITSK. ANY DATA THAT IS IN THE PROCESS OF BEING OUTPUT WILL BE RE-QUEUED
; AND RE-SENT WHEN THE LINK RETURNS TO SERVICE. THE EXCEPTION BEING WHEN
; A PARITY ERROR IS DETECTED BY THE HOST SYSTEM. THIS OCCURS BECAUSE
; THERE IS NO ACK/NAK PROTOCOL ON THE ACC LINK. WHEN THE PARITY ERROR
; IS DETECTED AND A RESTART IS INVOKED THE IN-CORE BUFFER THAT WAS IN THE
; PROCESS OF BEING OUTPUT WILL BE LOST. THE SPOOL FILES WILL BE CLOSED,
; AND RETRANSMITTED WHEN THE LINK RETURNS TO SERVICE.
;
; DATE WRITTEN: 5 MARCH 1979
;
; DATE MODIFIED:
;
; REGISTER USAGE:
; R0 = ADDRESS OF THE FILE DESCRIPTOR BLOCK (FDB)
; R1 = WORKING REGISTER
; R2 = NO. OF BLOCKS TO BE SENT OVER THE ACC LINK
; R3 = ADDRESS OF THE TABLE ENTRY WHICH RELATES RECORD TYPE
; TO TYPE AND PACKING MODE
; R4 = PACKING MODE
; R5 = ADDRESS OF BUFFER TO BE INPUT OR OUTPUT
;
; MACROS
;
; .MCALL- Q10W$S,RCVD$S,DECL$S,SPND$S,CLOSE$
; .MCALL- OFNB$R,READ$,WAIT$,SETF$S
; .MCALL- FDBDF$,FDRCA$,FDBK$A,FIDP$A,FSRSZ$
; .MCALL- ALTP$S
;
; .MACRO- ENT, ID, TYPE, PACK, TXTLGT, ?L1
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

HOTSK--- HOST-OUTPUT TASK.
INTRODUCTION.

MACRO.M1110 27-MAR-80 13:27 PAGE 10-1

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114

L1:
.WORD: "ID.
.WORD: TYPE
.WORD: PACK
.WORD: TXTLGT
VECLN$ = . - L1
.ENDM
.MACRO: MSGSTR.STRING.?L1.?L2
.WORD: L2-L1
.WORD: L1
L1:
.ASCII: /STRING/
L2:
.EVEN
.ENDM
;
; EQUATED VARIABLES
;
AC.LUN: = 1 ;AC-HANDLER LUN FOR TRANSMISSION
AC.EF: = 1 ;AC-HANDLER EVENT FLAG
FIL.LU: = 2 ;SPOOL FILE DISK LUN
FIL.EF: = 2 ;SPOOL FILE EVENT FLAG
;
; DATA BUFFERS AND DATA STORAGE AREAS
;
; REGION DEFINITION BLOCK
EUF: .BLKB N.BUFB ;SPOOL FILE BUFFER
FAR: .BLKW 2 ;MOUT$S OUTPUT PARAMETER LIST
FILST: .BLKW 2 ;SPOOL FILE I/O STATUS BLOCK
ACST: .BLKW 2 ;ACC I/O STATUS BLOCK
RCVBUF: .BLKW 15 ;BUFFER FOR RCVDS$ MACRO
STBUF: .BLKW 3 ;BUFFER FOR STATUS FUNCTION WORD THAT IS
;SEND TO THE HOST
;
; TABLE THAT GIVES THE RELATIONSHIP BETWEEN RECORD ID AND ITS TYPE AND PACKING
; MODE
;
VEC: ENT: DM.15..1.2048 ;MULTI-BLOCK DHR
DHRI: ENT: HD.4..1.2048 ;SINGLE BLOCK DHR
ECO: ENT: CB.3..1.2048 ;BATCH CUTOFF
FLU: ENT: OF.1..0.2048 ;FOS
SPQ: ENT: SP.2..2.32 ;STOP QUERIES
STQ: ENT: ST.2..2.32 ;START QUERIES
IBA: ENT: AD.10..4.2046 ;UPDATE ACK
RET: ENT: TR.12..3.2048 ;RETRIEVED DOCUMENT
ERR: ENT: EQ.19..1.32 ;QUERY ERROR
SMU: ENT: SM.17..2.32 ;START MASS UPDATE
NUL: ENT: NL.0.0.0 ;NULL ENTRY TO TELL SOFTWARE OF TABLE END
;
; FILE DESCRIPTOR BLOCK
FDB: FDBDF$
FDRCA$ FDRCA$ FIL.RUM
FDBK$A BUF.N.BUFB..FIL.EF.FILST
FDBP$A FIL.LU
FSRSZ$ 0
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

HOTSK---HUT-OUTPUT TASK-
INTRODUCTION

MACRO M1: 18-27 MAR-88 17:27 E 18-2
Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

115
116
117
118 004350
119 004406
120 004446
121 004522
122 004560
123 004606
124 004636
125 004710
126 004740
127 004776
128
129
130
131 005040 006 004
132 005042 005322 004
133 005044 006 005
134 005046 005554 005
135 005050 006 006
136 005052 005322 000
137 005054 007 000
138 005056 005322 003
139 005060 000 003
140 005062 005322 004
141 005064 000 004
142 005066 005322 000
143
144 005070 000 000
145 005072 005452 001
146 005074 000 001
147 005076 005470 002
148 005100 000 002
149 005102 005506 000
150 005104 000000
151 005106 000000

; ERROR MESSAGES

RCVER: MSGSTR: <RECEIVE DIRECTIVE ERROR %D>
RT: MSGSTR: <INVALID RECORD TYPE. " %2A ">
STE: MSGSTR: <STATUS XMIT ERROR %D, GRP IN PROGRESS>
DER: MSGSTR: <DETACH DIRECTIVE ERROR %D>
FILE: MSGSTR: <FILE LENGTH ERROR>
FOE: MSGSTR: <FILE OPEN ERROR %D>
TE: MSGSTR: <BLOCK XMIT ERROR %D, GRP IN PROGRESS>
FRE: MSGSTR: <FILE READ ERROR %D>
DIRER: MSGSTR: <DIRECTIVE STATUS %D, %0>
CBYTES: MSGSTR: <ILLEGAL COMMAND BYTES %10, %10>

; EXCHANGE ID PARSE TABLE

EXCHID: .BYTE 6.4 :DBACK OR RETRIEVED DOC.
.WORD SPOOLF
.BYTE 6.5 :SINGLE BLOCK DHR
.WORD SDHR
.BYTE 6.6 :MULTI-BLOCK DHR SPOOL FILE
.WORD SPOOLF
.BYTE 7.0 :FOS
.WORD SPOOLF
.BYTE 0.3 :BATCH CUT-OFF MSG
.WORD SPOOLF
.BYTE 0.4 :QUERY ERROR
.WORD SPOOLF
; .BYTE 0.0 :START QUERIES
.WORD NOFIL0
.BYTE 0.1 :STOP QUERIES
.WORD NOFIL1
.BYTE 0.2 :START MASS UPDATE
.WORD NOFIL2
.WORD 0 :END OF TABLE
.WORD 0

HOTSK--- HOST OUTPUT TASK
MAIN ROUTINE

MACRO M1: 10 27-MAR-80 13:27 PAGE 11

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170 005110
171 005110
172 005110
173 005126
174 005132 103766
175 005134
176 005150 000757
177

```
.SBTTL MAIN ROUTINE
;+
;
; MAIN ROUTINE
;
; THE PURPOSE OF THIS ROUTINE IS TO GET DATA AND TO SEND IT TO THE HOST
; SYSTEM. IF THERE IS NO DATA THE TASK WILL SUSPEND AND WAIT FOR ANOTHER
; TASK TO RESUME IT WHEN DATA IS AVAILABLE
;
; INPUTS:
;     NONE
;
; OUTPUTS:
;     NONE
;
;-
;
START:
MORE:
    ALTP$S  ,#150.      ; INCREASE PRIORITY TO 150
    CALL    RCVFIL      ; SEE IF THERE IS ANYTHING IN THE RCVDAT QUEUE
    BCS     MORE        ; YES THERE WAS, GO SEE IF THERE IS ANYMORE
    SPND$S  DIRERR      ; NOTHING IN EITHER THE RBRQ OR RCVDAT QUEUES
    BR      MORE        ; WHEN THERE IS SOMETHING, ANOTHER TASK WILL
                        ; ACITVATE HOTSK
```

HOTSK--H-OUTPUT TASK:
RCVFIL ROUTINE

MACRO M110 27-APR-88 13:27 P. 12

```

179          .SBTTL--RCVFIL ROUTINE
180          ;+
181          ;
182          ; RCVFIL ROUTINE
183          ;
184          ; THIS ROUTINE SENDS EXCHANGES RECEIVED IN THE RCVQ TO THE HOST SYSTEM.
185          ;
186          ;-
187          ;
188          RCVFIL:
189          RCVDS:  .#RCVBUF          ; INPUT DATA BUFFER
190          TST     $DSW              ; ERROR ON INPUT?
191          BGT     1$                ; NO, GO PROCESS THE FILE
192          CMP     $DSW,#IE,ITS      ; YES, NO DATA QUEUED?
193          BNE     11$              ; NO, REPORT THE ERROR
194          CLC                     ; YES, TELL CALLER THAT...
195          BR      99$              ; WAS NO DATA
196          11$:
197          CALL    DIRERR           ; OUTPUT ERROR
198          CLC
199          BR      99$              ; RETURN
200          ;
201          ; PARSE COMMAND RECEIVED IN RCVQ
202          ;
203          1$:  MOV     #EXCHID,R1    ; R1->PARSE TABLE
204          CMP     (R1)+,RCVBUF+4    ; CHECK COMMAND BYTES
205          BNE     5$                ; BRANCH IF NO MATCH
206          ALTP$S:
207          JMP     @ (R1)+           ; JUMP TO ROUTINE
208          TST     (R1)+             ; R1->NEXT PARSE TABLE ENTRY
209          TST     2(R1)             ; END OF TABLE?
210          BNE     4$                ; BRANCH IF NO
211          ;
212          ; ILLEGAL COMMAND BYTES
213          ;
214          4$:  MOVB     RCVBUF+4,PAR  ; PAR = LOW BYTE
215          MOVB     RCVBUF+5,PAR+2    ; PAR+2 = HI BYTE
216          MOUT$S:  #CBYTES,#PAR     ; OUTPUT ERROR MSG
217          SEC
218          99$:  RETURN

```

HOTSK-- HOST OUTPUT TASK.
SPOOLF.

MACRO:M1110 27-MAR-80 13:27 PAGE 13

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
.SBTTL SPOOLF.
;
; SUBROUTINE TO TRANSMIT SPOOLED DATA TO HOST.
;
; OPEN THE FILE AND COMPUTE THE FILE LENGTH.
;
SPOOLF: MOV #RCVBUF+S.R1 ;R1->FILE NAME BLOCK
CALL OPEN ;OPEN THE SPOOL FILE
BCS 99$ ;ERROR GO EXIT
MOV #BUF,R5 ;R5->INPUT BUFFER
CALL LENGTH ;COMPUTE THE LENGTH
;
; FIND THE RECORD'S TYPE AND PACKING MODE.
; R2 = LENGTH.
;
CALL READ ;GET THE FIRST BLOCK
BCS 50$ ;IF ERROR GO TRY AGAIN
CALL DSPTCH ;GET THE TYPE AND PACKING MODE
CALL STATUS ;SEND THE STATUS FUNCTION WORDS TO HOST
CMP #*AD,BUF ;DBU ACK?
BNE 1$ ;BRANCH IF NO
MOV BUF,BUF+2 ;REVERSE TYPE AND PAD WORDS
CLR BUF
1$: CALL SEND ;SEND TO THE HOST THE FIRST BLOCK
BCS 50$ ;IF ERROR GO TRY AGAIN
DEC R2 ;ACCOUNT FOR BLOCK JUST SENT
BEQ 3$ ;IF THATS ALL GO CLOSE FILE
;
; SEND THE REMAINING BLOCKS IN THE SPOOL FILE.
;
2$: CALL READ ;GET A BLOCK
BCS 99$ ;IF ERROR GO EXIT
CALL SEND ;SEND A BLOCK
BCS 50$ ;IF ERROR GO EXIT
SOB R2,2$ ;GO OUTPUT NEXT BLOCK
3$: CALL .DLFNB ;DELETE THE FILE
SEC ;INDICATE THAT A FILE WAS OUTPUT
;
99$: RETURN
50$: CLOSE$ ;AN ERROR WAS DETECTED, CLOSE THE
BR SPOOLF ;SPOOL FILE AND TRY TO SEND IT AGAIN
```


HOTSK-- -- OUTPUT TASK.
NOFILE.

MACRO.M1: 19 27-MAR-88 13:27 14

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
264      .SBTTL- NOFILE-
265      ;
266      ; SUBROUTINE TO SEND TO THE HOST A PREDEFINED DATA BLOCK FOR THOSE
267      ; EXCHANGES THAT HAVE NO SPOOL FILE.
268      ;
269      ; THE COMMAND BYTES INDICATE WHAT THE DATA SHOULD BE.
270      ;
271 005452 016767 176452 172320 NOFIL0: MOV- STQ, BUF-      ; START QUERIES-
272 005460 012767 000001 172314      MOV- #1, BUF+2-
273 005466 000414      BR- NOFILE-
274 005470 016767 176424 172302 NOFIL1: MOV- SPQ, BUF-      ; STOP QUERIES-
275 005476 012767 000002 172276      MOV- #2, BUF+2-
276 005504 000405      BR- NOFILE-
277 005506 016767 176456 172264 NOFIL2: MOV- SMU, BUF-      ; START MASS UPDATE-
278 005514 005067 172262      CLR- BUF+2-
279      ;
280      ;
281      ;
282 005520 012702 000001      NOFILE: MOV- #1, R2-      ; R2 = BLOCK LENGTH OF EXCHANGE
283 005524 012705 000000      MOV- #BUF, R5-      ; R5 -> OUTPUT BUFFER
284 005530      CALL- DSPTCH-      ; GET THE TYPE AND PACKING MODE
285 005534      CALL- STATUS-      ; SEND THE STATUS FUNCTION WORDS
286 005540 103767      BCS- NOFILE-      ; IF ERROR, TRY AGAIN
287      ;
288      ; SEND DATA BLOCK-
289      ;
290 005542      CALL- SEND-
291 005546 103764      BCS- NOFILE-
292 005550 000261      SEC-
293 005552 000207      RETURN-
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

HOTSK -- HOST OUTPUT TASK
SDHR

MACRO: M1110 27-MAR-80 13:27 PAGE 15

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
295  
296  
297  
298  
299  
300  
301 005554 012702 000001  
302 005560 016705 176240  
303 005564  
304 005570  
305 005574 103767  
306  
307  
308  
309 005576  
310 005602 103764  
311 005604 016701 176212  
312 005610 046761 176212 000000  
313 005616  
314 005630  
315 005636 000261  
316 005640 000207  
      .SBTTL SDHR  
      ;  
      ; SUBROUTINE TO TRANSMIT TO THE HOST A SINGLE-BLOCK DHR RECEIVED  
      ; FROM DMCIN VIA DOUBLE IN-CORE BUFFERS. RCVBUF CONTAINS INFORMATION  
      ; IDENTIFYING THE BUFFER CONTAINING THE DHR.  
      ;  
SDHR:  MOV.  #1,R2.          ;R2 = BLOCK LENGTH OF EXCHANGE.  
      MOV.  RCVBUF+8.,R5     ;R5 -> INPUT BUFFER (SAME AS OUTPUT BUFF.)  
      CALL. DSPTCH.  
      CALL. STATUS.  
      BCS.  SDHR  
      ;  
      ; SEND BLOCK.  
      ;  
      CALL. SEND  
      BCS.  SDHR  
      MOV.  RCVBUF+6,R1      ;R1 -> DHR CONTROL TABLE.  
      BIC.  RCVBUF+13.,DH,CTL(R1) ;MARK BUFFER EMPTY.  
      SETF$. DH,FLG(R1)      ;SET EVENT FLAG TO SIGNAL DMCIN.  
      DECL$.  
      SEC.  
      RETURN.
```

HOTSK-- H: OUTPUT TASK
DSPTCH: ROUTINE

MACRO M1110 27 MAR 88 17:27 F 16
Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

318                                     .SBTTL: DSPTCH:ROUTINE
319                                     ;+
320                                     ;
321                                     ; DSPTCH:ROUTINE
322                                     ;
323                                     ; THIS ROUTINE SEARCHES THE "VEC" TABLE GIVEN THE RECORD ID. IF THE
324                                     ; ID IS FOUND THE RECORD TYPE AND PACKING MODE ARE RETURNED.
325                                     ;
326                                     ; INPUTS:
327                                     ;     R5->BUFFER ADDRESS
328                                     ;
329                                     ; OUTPUTS:
330                                     ;
331                                     ;     R3-> VEC
332                                     ;     R4 = PACKING MODE
333                                     ;
334                                     ; -
335                                     ;
336 005642: DSPTCH: MOV.      #VEC,R3          ;R3->START OF "VEC" TABLE
337 005642: 012703 004060* 2$: CMP.      (R3),(R5)          ;TABLE MATCH RECORD ID?
338 005646: BEQ.      1$          ;YES
339 005646: 021315 ADD.      #VECLN$,R3        ;NO, POINT R3 TO THE NEXT ONE
340 005650: 001421 TST.      2(P3)          ;IS THIS THE END OF THE TABLE?
341 005652: 062703 000010 BNE.      2$          ;NO, CONTINUE SEARCHING
342 005656: 005763 000002 MOV.      (R5),PAR        ;YES, OUTPUT ERROR MESSAGE
343 005662: 001371 MOUT$S. #IRT,#PAR
344 005664: 011567 176110 SEC.          ;INDICATE AND ERROR
345 005670: BR.      99$
346 005710: 000261 1$: MOV.      4(R3),R4        ;R4=PACKING MODE
347 005712: 000403 CLC.          ;INDICATE THAT THE RECORD WAS FOUND
348 005714: 351:
349 005714: 016304 000004 99$: RETURN
350 005720: 000241
351 005722:
352 005722: 000207
```

HOTSK.-- HOST OUTPUT TASK.
STATUS ROUTINE.

MACRO: M1110 27-MAR-80 13:27 PAGE 17
Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

354                                     .SBTTL STATUS ROUTINE
355                                     ;+
356                                     ;
357                                     ; STATUS ROUTINE.
358                                     ;
359                                     ; SEND A STATUS FUNCTION WORD TO THE HOST SYSTEM.
360                                     ;
361                                     ; INPUTS:
362                                     ; R2 = BLOCK LENGTH OF EXCHANGE.
363                                     ; R3->"VEC" TABLE ENTRY WHICH POINTS TO THE RECORD TYPE.
364                                     ;
365                                     ; OUTPUTS:
366                                     ; R3 = BYTE LENGTH OF BLOCK TO BE TRANSMITTED.
367                                     ; STATUS FUNCTION WORD IS SEND TO THE HOST SYSTEM.
368                                     ;
369                                     ;
370                                     ;
371 005724 STATUS:
372 005724     SAVE R0,R1
373
374                                     ; PACK THE STATUS WORD WITH THE RECORD TYPE AND LENGTH.
375                                     ;
376 005730 010201     MOV R2,R1           ;R1=FILE LENGTH.
377 005732 072127 000004     ASH #4,R1       ;ADJUST FOR PUTTING IN THE TYPE.
378 005736 016300 000002     MOV 2(R3),R0     ;R0=RECORD TYPE.
379 005742 073027 177776     ASHC #-2,R0      ;ADJUST BOTH TYPE AND LENGTH.
380 005746 010067 176100     MOV R0,STBUF
381 005752 010157 176076     MOV R1,STBUF+2.
382 005756 016303 000006     MOV 6(R3),R3     ;R3 = BYTE LENGTH OF BLOCK TO
383                                     ; BE TRANSMITTED.
384 005762 005067 176070     CLR STBUF+4       ;CLEAR OPTIONAL DATA
385
386                                     ; SEND THE STATUS FUNCTION WORD.
387                                     ;
388 005766     QIOWS #10,MOD,*AC,LUN,*AC,EF,,*ACST,<#STBUF,#6>,.DIRERR.
389 006046 105767 175736     TSTB ACST         ;IS THERE AND I/O ERROR.
390 006052 003021     BGT 1$                 ;NO.
391 006054 116700 175730     MOVB ACST,R0
392 006060 020027 000000     CMP R0,#1E,DHR.  ;DEVICE NOT READY ERROR?
393 006064 001412     BEQ 2$                 ;BRANCH IF YES.
394 006066 010067 175706     MOV R0,PAR
395 006072     MOUTS #STE,*PAR
396 006112 000261     SEC                     ;OUTPUT ERROR MESSAGE.
397 006114 000401     BR 99$                 ;INDICATE ERROR TO CALLER.
398 006116
399 006116 000241     1$: CLC
400 006120     59$: CLC
401 006120     RESTOR R0,R1
402 006124 000207     RETURN

```

HOTSK---HUT-OUTPUT TASK.
LENGTH ROUTINE.

MACRO M1110 27 MAR 80 13:27 18
Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

404                                     .SBTTL-LENGTH ROUTINE
405                                     ;+
406                                     ;
407                                     ; THIS ROUTINE COMPUTES THE LENGTH OF A FILE IN 1024 WORD BLOCKS.
408                                     ;
409                                     ; INPUTS:
410                                     ;     R0->FDB.
411                                     ;
412                                     ; OUTPUTS:
413                                     ;     R2=LENGTH OF THE FILE IN 1024 WORD BLOCKS.
414                                     ;
415                                     ;-
416                                     ;
417 006126 LENGTH:
418 006126
419 006130 016002 000010
420 006134 016003 000012
421 006140 162703 000001
422 006144 005602
423 006146 071227 000004
424 006152 001404
425 006154 005703
426 006156 001002
427 006160 000241
428 006162 000410
429 006164
430 006164
431 006202 000261
432 006204
433 006204
434 006206 000207

                                     SAVE R3
                                     MOV F:EFBK(R0),R2 ;GET HIGH ORDER FCS BLOCK COUNT
                                     MOV F:EFBK+2(R0),R3 ;GET LOW ORDER FCS BLOCK COUNT
                                     SUB #1,R3 ;MAKE IT ZERO RELATIVE
                                     SBC R2
                                     DIV #N.BFAC,R2 ;CONVERT TO HSTS BLOCK COUNT
                                     BEQ 1$ ;THERE CANNOT BE ZERO BLOCKS
                                     TST R3 ;THERE MUST BE EVEN MULTIPLES
                                     BNE 1$ ;NOT EVEN, REPORT ERROR
                                     CLC ;EVERYTHING IS OK, RETURN
                                     BR 99$

1$: MOUT$ #FILE ;REPORT THE ERROR
   SEC ;GIVE AN ERROR RETURN
99$: RESTOR R3
   RETURN

```

HOTSK-- HOST-OUTPUT TASK.
OPEN-ROUTINE.

MACRO-M1110 27-MAR-80 13:27 PAGE 19

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452 006210
453 006210 012700 004210
454 006214
455 006220
456 006232 105760 000052
457 006236 003016
458 006240 116001 000052
459 006244 010167 175530
460 006250
461 006270 000261
462 006272 000401
463 006274
464 006274 000241
465 006276
466 006276 000207

```

;+
;
; OPEN-ROUTINE.
;
; THE PURPOSE OF THIS ROUTINE IS TO OPEN A SPOOL FILE.
;
; INPUTS:
;
;   R1->FILE NAME BLOCK THAT IS TO BE OPEN.
;
; OUTPUTS:
;
;   R0->FDB.
;   IF AN ERROR IS DETECTED THE "C" BIT IS SET, ELSE IT IS CLEARED
;
; -
;
CPEN:
    MOV     #FDB,R0          ;R0->FDB
    CALL    BLDEFL          ;FILL OUT THE FDB FILE ID SECTION.
    QFNB$R.                ;OPEN THE FILE.
    TSTB    F.ERR(R0)        ;IS THERE AN ERROR ?
    BGT     1$              ;NO.
    MOVB     F.ERR(R0),R1     ;YES, OUTPUT THE ERROR MESSAGE.
    MOV      R1,PAR.
    MOUT$S   #FOE,#PAR.
    SEC.
    BR       99$            ;INDICATE AN ERROR
1$:
    CLC.
    ;INDICATE EVERYTHING OK.
99$:
    RETURN.

```

HOTSK--
SEND ROUTINE

MACRO M1110 27-MAR-80 13:27

Approved For Release 2005/07/20 : CIA-RDP85-00514R000100030001-3

```

468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486 006300
487 006300
488 006302
489 006356 105767 175426
490 006362 003021
491 006364 116705 175420
492 006370 020527 000000G
493 006374 001412
494 006376 010567 175376
495 006402
496 006422 000261
497 006424 000401
498 006426
499 006426 000241
500 006430
501 006430
502 006432 000207

```

```

; SBTTL SEND ROUTINE
;
;+
;
; SEND ROUTINE
;
; THE PURPOSE OF THIS ROUTINE IS TO SEND A BLOCK OF DATA TO THE HOST SYSTEM.
;
; INPUTS:
; R5->BUFFER TO BE OUTPUT
; R4 = PACKING MODE
; R3 = BYTE LENGTH OF BLOCK TO BE TRANSMITTED TO HOST
;
; OUTPUTS:
; IF THERE IS AN ERROR THE "C" BIT IS SET, ELSE IT IS CLEARED.
;
;
SEND:
    SAVE R5
    QIOWS: #IO:WLB,#AC:LUN,#AC:EF,#ACST,<R5,R3,R4>,DIRERR
    TSTB ACST ; IS THERE AN ERROR?
    BGT 1$ ; NO
    MOVB ACST,R5 ; YES, OUTPUT ERROR MSG
    CMP R5,#IE,DNR ; DEVICE NOT READY ERROR?
    BEQ 2$ ; BRANCH IF YES
    MOV R5,PAR
    MOUTS: #TE,#PAR
    2$: SEC ; INDICATE AN ERROR
    1$: BR 99$
    CLC
    99$: RESTOR R5
    RETURN

```

Approved For Release 2005/07/20 : CIA-RDP85-00514R000100030001-3

HOTSK.-- HOST-OUTPUT TASK.
READ-ROUTINE.

MACRO-M1:10 27-MAR-80 15:27 PAGE 31

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520 006434
521 006434
522 006436
523 006450
524 006462 105767 175316
525 006466 003016
526 006470 116700 175310
527 006474 010067 175300
528 006500
529 006520 000261
530 006522 000401
531 006524
532 006524 000241
533 006526
534 006526
535 006530 000207

```
.SBTTL READ ROUTINE.
;+
; READ-ROUTINE.
; THE PURPOSE OF THIS ROUTINE IS TO READ ONE 1024 WORD BLOCK FROM A SPOOL FILE.
; THIS ROUTINE ASSUMES THAT THE FILE IS ALREADY OPENED.
; INPUTS:
;   R0->FDB.
; OUTPUTS:
;   IF THERE IS AN ERROR THE "C" BIT IS SET, ELSE IT IS CLEARED.
;-
READ:
    SAVE    R0
    READ$   .....DIRERR.
    WAIT$   ...DIRERR.
    TSIB    FILST.
    BGT     1$
    MOV     FILST,R0
    MOV     R0,PAR.
    MOUT$   #FRE,#PAR.
    SEC
    BR      99$
1$:
    CLC
59$:
    RESTOR  R0
    RETURN
```

:READ A BLOCK.
:WAIT FOR IT TO COMPLETE.
:WAS THERE AN ERROR?
:NO
:YES, OUTPUT ERROR MESSAGE.
:INDICATE THAT THERE IS AN ERROR.

HOTSK-- H- OUTPUT TASK
DIRERR ROUTINE

MACRO: M1110 27-MAR-80 13:27 B11-22
Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
537 .SBTTL DIRERR ROUTINE
538 ;+
539 ;
540 ; DIRERR ROUTINE
541 ;
542 ; THE PURPOSE OF THIS ROUTINE IS TO REPORT DIRECTIVE STATUS ERRORS TO
543 ; THE SYSTEM LOG
544 ;
545 ; INPUTS:
546 ; DSW
547 ;
548 ; OUTPUTS:
549 ; DIRECTIVE STATUS ERROR MESSAGE TO THE SYSTEM LOG
550 ;
551 ;-
552 ;
553 006532 DIRERR:
554 006532 016767 000000G 175240 MOV $DSW,PAR ;GET THE DSW ERROR
555 006540 011667 175236 MOV (SP),PAR+2 ;GET ADDR OF CALLING ROUTINE
556 006544 MOUT$S $DIRER,*PAR ;OUTPUT THE MESSAGE
557 006564 000207 RETURN
558 ;*****
559 005110 .END START
```

MACRO: M1110 27-MAR-80 13:27 PAGE 22-1
SYMBOL TABLE

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

ACST- 004010R	B.HRLW 000124	010 FN.EMB 000014	011 F.RTYP- 000000	SMU 004170R
AC.EF- 000001	B.NMBR 000052	010 FN.EMC 000016	011 F.SEQN- 000100	SPOOLF 005322R
AC.LUN- 000001	B.NQRY 000232	010 FN.FSA 000000	011 F.SPDV- 000072	SPQ 004120R
BCO 004100R	B.QLSZ 000106	010 FN.FSB 000002	011 F.SPUN- 000074	SR.ARE 000114 002
BITVAL- 000000	B.QMAP 000234	010 FN.FSC 000004	011 F.STBK- 000036	SR.ARS 000106 002
BIT0 - 000001	B.QSPL 000316	010 FN.LGO 000034	011 F.UNIT- 000136	SR.DAY 000010 002
BIT1 - 000002	B.QTTH 000076	010 FN.LGU 000036	011 F.URBD- 000020	SR.DLT 000014 002
BIT10 - 002000	B.OUQP 000056	010 FN.MFO 000024	011 F.VBN - 000064	SR.ECH 000047 002
BIT11 - 004000	B.SFDB 000010	010 FN.MHR 000010	011 F.VBSZ- 000060	SR.ECL 000050 002
BIT12 - 010000	B.SIZE 000772	010 FN.NMB 000044	011 IE.DNR- ***** GX	SR.FIB 000012 002
BIT13 - 020000	B.SHPD 000012	010 FN.QLS 000006	011 IE.ITS- ***** GX	SR.GRE 000100 002
BIT14 - 040000	B.SSO 000004	010 FN.QRY 000020	011 IO.MOD- ***** GX	SR.GRS 000072 002
BIT15 - 100000	B.SSQF 000050	010 FN.SFO 000030	011 IO.MLB- ***** GX	SR.LEN 000122 002
BIT2 - 000004	B.STAT 000044	010 FN.SFI 000032	011 IRT 004406R	SR.LIN 000066 002
BIT3 - 000010	B.STTE 000053	010 FN.SHD 000042	011 LENGTH 006126R	SR.LIP 000062 002
BIT4 - 000020	B.UDOC 000110	010 FOE 004606R	M 000062	SR.NON 000006 002
BIT5 - 000040	CBYTES 004776R	FO.RD - ***** GX	MORE 005110R	SR.NDC 000042 002
BIT6 - 000100	CF.B0 - 000070	FRE 004710R	MSGOUT- ***** GX	SR.NDS 000036 002
BIT7 - 000200	CF.B2 - 000067	F.ACTL- 000076	N 000002	SR.NIN 000030 002
BIT8 - 000400	CF.B4 - 000066	F.ALLOC- 000040	NOFILE 005520R	SR.NIP 000022 002
BIT9 - 001000	CF.B6 - 000065	F.BBFS- 000062	NOFIL0 005452R	SR.SDB 000032 002
BLDEFL- ***** GX	CF.DR0 - 000064	F.BIB - 000070	NOFIL1 005470R	SR.SRC 000002 002
BS.CLS- 000002	CF.DR1- 000063	F.BGBC- 000057	NOFIL2 005506R	SR.SUN 000000 002
BS.DBU- 000004	DBA 004140R	F.BKDN- 000026	NUL 004200R	SR.TUS 000056 002
BS.INA- 000000	DBSLEN- 000116	F.BKDS- 000020	N.BFAC- 000004	SR.WSL 000052 002
BS.OPN- 000001	DER 004522R	F.BKEF- 000050	N.BHGH- 000006	SR.YR 000004 002
BS.SRC- 000003	DHRI 004070R	F.BKPI- 000051	N.BTCH- 000004	SR.YIN 000004 002
BUF 000000R	DH.BF0 000002	005 F.AKST- 000024	N.BUFB- 004000	SR.YIP 000016 002
BYTE0 - 000000	DH.BF1 000004	005 F.BKVB- 000064	N.BUFW- 002000	SS.FID 000002 004
BYTE1 - 000001	DH.CTL 000000	005 F.CHR - 000075	N.DID - 000024	SS.FNB 000010 004
BYTE2 - 000002	DH.DMC 000010	005 F.CNTG- 000034	N.DVNM- 000032	SS.FVR 000006 004
BYTE3 - 000003	DH.FLG 000006	005 F.DFNB- 000046	N.FID - 000000	SS.LEN 000012 004
BYTE4 - 000004	DH.FLR 004740R	F.DSPT- 000044	N.FNAM- 000006	SS.STT 000000 004
BYTE5 - 000005	DH.FRR 006532R	F.DVNM- 000134	N.FOS - 000764	START 005110R
BYTE6 - 000006	DH.DCK 000000	013 F.EFBF- 000010	N.FTPY- 000014	STATUS 005724R
BYTE7 - 000007	DH.NTP 000004	013 F.EFN - 000050	N.FVER- 000016	STBUF 004052R
BYTE8 - 000010	DH.NXT 000006	013 F.EOB0 - 000032	N.NEXT- 000022	STE 004446R
BYTE9 - 000011	DH.ROT 000002	013 F.EPR - 000052	N.PKSZ- 000020	STQ 004130R
BYTVAL- 000012	DH.SIZ 000010	013 F.FACC- 000043	N.PKTS- 000043	ST.ASZ 000020 006
B.BSTA 000054	010 DSPTCH 005642R	F.FFBY- 000014	N.OURY- 000031	ST.BSZ 000024 006
B.CNTX 000046	010 ERR 004160R	F.FNAM- 000110	N.STAT- 000020	ST.BTC 000000 006
B.COUP 000060	010 EXCHID 005040R	F.FNB - 000102	N.SUNT- 000002	ST.CSZ 000030 006
B.FEMA 000132	010 FDB 004210R	F.FTPY- 000116	N.UNIT- 000034	ST.HRL 000010 006
B.FEMB 000142	010 FD.FID 000000	003 F.FVER- 000120	OPEN 006210R	ST.LEN 000044 006
B.FENC 000152	010 FD.FNB 000006	003 F.HIBK- 000004	PAR 004000R	ST.ORY 000002 006
B.FFSA 000202	010 FD.FVR 000004	003 F.LUN - 000042	OE.R01- 000144	ST.OSZ 000034 006
B.FFSB 000212	010 FD.LEN 000010	003 F.MBCT- 000054	Q.FDSC 000004	ST.SCH 000040 006
B.FFSC 000222	010 FD.RUM- ***** GX	F.MBC1- 000055	Q.NQBK 000000	ST.UHL 000004 006
B.FMHR 000172	010 FILST 004004R	F.MBFG- 000056	Q.NUHL 000002	ST.XLT 000014 006
B.FQLS 000162	010 FIL.EF- 000002	F.NRBD- 000024	Q.SIZE 000014	SU.DBU- 000004
B.FSAZ 000100	010 FIL.LU- 000002	F.NREC- 000030	RCVBUF 004014R	SU.DON- 000006
B.FSBZ 000102	010 FLE 004560R	F.OVES- 000030	RCVER 004350R	SU.IDL 000000
B.FSCZ 000104	010 FLU 004110R	F.RACC- 000016	RCVIL 005152R	SU.LOB 000001
B.HBLK 000120	010 FN.DBR 000026	011 F.RATT- 000001	READ 006434R	SU.SRR 000005
B.HDOC 000114	010 FN.DBS 000022	011 F.RCNP- 000034	RET 004100R	SU.XPD- 000003
B.HRLP 000126	010 FN.DHR 000040	011 F.PCTL- 000017	SDHR 005554R	
B.HRLR 000122	010 FN.EMA 000012	011 F.RSIZ- 000002	SEND 006300R	

HOTSK -- HOT OUTPUT TASK
SYMBOL TABLE

Approved For Release 2005/07/21 : CIA-RDP85-00514R000100030001-3

S.BFHD= 000020	VEC= 004060R	WORD3 = 000006	XDMCIN= 000006	\$\$\$ARG= 000002
S.FATT= 000016	VECLN\$= 000010	WORD4 = 000010	XFOSMR= 000007	\$\$\$T1 = 000067
S.FDB= 000140	WN.NTP 000004	012 WORD5 = 000012	XGTSRE= 000014	.CLOSE= ***** G.
S.FNHM= 000006	WN.NXT 000006	012 WORD6 = 000014	XHITSK= 000011	.DLFNB= ***** GX.
S.FNB= 000036	WN.ROT 000002	012 WORD7 = 000016	XHLIER= 000002	.FSRCB= ***** G.
S.FNBW= 000017	WN.SIZ 000010	012 WORD8 = 000020	XHOTS= 000010	.OPFNB= ***** G.
S.FNTY= 000004	WN.SRC 000000	012 WORD9 = 000022	XNSCHE= 000000	.READ= ***** G.
S.FTYP= 000002	WN.TYP 000001	012 WRDVAL= 000024	XOTS= 000003	.WAIT= ***** G.
S.HRL= 000240	WORD0 = 000000	XBATCH= 000013	XOT0 = 000001	...PC1= 004210R.
S.NFEN= 000020	WORD1 = 000002	XDBLOA= 000004	XSULOA= 000005	...PC2= 004350R.
TE= 004636R	WORD2 = 000004	XDBPRO= 000012	\$DSW= ***** GX.	...TPC= 000020

.ABS= 000000	000
006566	001
SRCOFF= 000122	002
FDSCOF= 000010	003
SUSOFF= 000012	004
DHROFF= 000012	005
STTOFF= 000044	006
QSPLOF= 000014	007
BSTOFF= 000772	010
FNOFFS= 000044	011
WNODOF= 000010	012
DNODOF= 000010	013
\$\$FSR1 000000	014

ERRORS DETECTED: 0

VIRTUAL MEMORY USED: 6400 WORDS (25 PAGES)
DYNAMIC MEMORY: 7020 WORDS (27 PAGES)
ELAPSED TIME: 00:00:59
HOTSK, HOTSK /-SP=C20, 1 JP, M, HOTSK.

ACC. HANDLE: MACRO-M1110 27-MAR-80 13:32
TABLE OF CONTENTS:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

7-	3	INTRO AND MACROS
8-	26	EQUATED SYMBOLS
9-	106	LOCAL DATA
10-	168	ACINI -- ENTRY POINT
11-	265	RSTRT -- SUBROUTINE
12-	349	XMIT -- SUBROUTINE
13-	457	RECEVE -- SUBROUTINE
14-	567	FUNCT -- SUBROUTINE
15-	703	XMTINT (\$ACOU) -- ENTRY POINT
16-	794	RCVINT (\$ACINP) -- ENTRY POINT
17-	1005	DMA -- SUBROUTINE
18-	1050	POWER FAIL -- ENTRY POINT
19-	1076	TIME OUT -- ENTRY POINT
20-	1120	CANCEL -- ENTRY POINT
21-	1161	CKERR -- ROUTINE
22-	1208	SETAPR -- ROUTINE
23-	1246	IODONE -- ROUTINE
24-	1288	SETERR -- ROUTINE

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

ACC-HANDLER- MACRO-M1110 27-MAR-80 13:32 PAGE 7

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
1      .TITLE- ACC-HANDLER-
2      .IDENT- /01/
3      .SBTTL- INTRO AND MACROS-
4
5      ; ACC-HANDLER-
6      ;
7      ; DATE-WRITTEN:
8      ; 8-FEB-78
9      ;
10     ; DATE-MODIFIED:
11     ;
12     ;
13     ; MACROS-CALLED-
14     .MCALL- ABODF$,HWDIF$,PKTDF$,TCBDF$,FILIO$,SPCIO$,IOERR$
15     .MCALL- SCBDF$,UCBDF$,DRERR$
16 000010 SPCIO$ ;DEFINE-QIO-COMMANDS-
17
18     ; LOCAL-MACRO-DEFINITIONS-
19     ;
20     .MACRO- ENTRY,IO,ROUTINE,RSFLG,BC ;DEFINE-ACINI-VECTOR-TABLE-
21     .WORD- IO/256,
22     .WORD- ROUTINE-
23     .BYTE- RSFLG,BC-
24     .ENDM-
```

```

26      .SBTTL EQUATED SYMBOLS
27      :
28      : EQUATED SYMBOLS.
29      :
30 000000      .PSECT ACCREG,ABS,;OFFSETS FOR THE ACC. HARDWARE REGISTERS.
31 000000      R.CSR: .BLKW 1      ;RECEIVE CHANNEL STATUS REGISTER.
32 000002      R.DB: .BLKW 1      ;RECEIVE DATA BUFFER.
33 000004      R.MA: .BLKW 1      ;RECEIVE MEMORY ADDRESS.
34 000006      R.WC: .BLKW 1      ;RECEIVE WORD COUNT.
35 000010      T.CSR: .BLKW 1      ;TRANSMIT CHANNEL STATUS REGISTER.
36 000012      T.DB: .BLKW 1      ;TRANSMIT DATA BUFFER.
37 000014      T.MA: .BLKW 1      ;TRANSMIT MEMORY ADDRESS.
38 000016      T.WC: .BLKW 1      ;TRANSMIT WORD COUNT.
39 000020      R.EF2: .BLKW 1      ;RECEIVE EXTERNAL FUNCTION WORD 0 (BITS 0-15)
40 000022      R.EF1: .BLKW 1      ;RECEIVE EXTERNAL FUNCTION WORD 1 ( 16-31)
41 000024      R.EF0: .BLKW 1      ;RECEIVE EXTERNAL FUNCTION WORD 2 ( 32-35)
42 000026      T.EF2: .BLKW 1      ;TRANSMIT EXTERNAL STATUS WORD 0 (BITS 0-15)
43 000030      T.EF1: .BLKW 1      ;TRANSMIT EXTERNAL STATUS WORD 1 ( 16-31)
44 000032      T.EF0: .BLKW 1      ;TRANSMIT EXTERNAL STATUS WORD 2 ( 32-35)
45 000034      MCR: .BLKW 1      ;MODE CONTROL REGISTER.
46 000036      MC: .BLKW 1      ;MAINTENANCE CONTROL.
47 000000      .PSECT.
48      :
49      : RECEIVE CSR AND TRANSMIT CSR REGISTER BIT DEFINITIONS.
50      :
51      000001      DMAGO =. BIT0 ;RCV AND XMIT DMA GO BIT.
52      000002      BYTE =. BIT1 ;RCV AND XMIT BYTE ADDRESSING MODE.
53      000004      BBPDP =. BIT2 ;RCV PDP BUS BACK.
54      000010      BBUNVC =. BIT3 ;RCV UNIVAC BUS BACK.
55      000004      RESET =. BIT2 ;XMIT, RESET ACC HARDWARE INTERFACE.
56      000020      EA16 =. BIT4 ;RCV AND XMIT EXTENDED MEMORY ADDRESS BITS.
57      000040      EA17 =. BIT5 ;RCV AND XMIT EXTENDED MEMORY ADDRESS BIT.
58      000100      INT =. BIT6 ;RCV AND XMIT ENABLE INTERRUPT.
59      000200      DMADON =. BIT7 ;RCV AND XMIT DMA DONE.
60      000400      RBF =. BIT8 ;RCV READ BUFFER FULL.
61      000400      TBE =. BIT8 ;XMIT TRANSMIT BUFFER EMPTY.
62      001000      WCEZ =. BIT9 ;RCV AND XMIT DMA WORD COUNT EQUAL TO ZERO.
63      004000      PARITY =. BIT11 ;RCV, PARITY ERROR ON INPUT.
64      010000      CPBF =. BIT12 ;RCV, DMA INPUT PADDED BECAUSE OF INPUT FUNC.
65      020000      UNVCR =. BIT13 ;RCV AND XMIT, UNIVAC RESET THE CHANNEL.
66      040000      MEMR =. BIT14 ;RCV AND XMIT, NON-EXISTANT MEMORY.
67      100000      COMP =. BIT15 ;RCV AND XMIT, COMPOSITE OF BITS 13 AND 14.
68      :
69      : MODE CONTROL REGISTER.
70      :
71      000001      RPM0 =. BIT0 ;RECEIVE PACKING MODE BIT 0.
72      000002      RPM1 =. BIT1 ;RECEIVE PACKING MODE BIT 1.
73      000004      RPM2 =. BIT2 ;RECEIVE PACKING MODE BIT 2.
74      000100      DA =. BIT6 ;RCV, ATTENTION UNIVAC IS SENDING DATA.
75      000200      FRFUC =. BIT7 ;RCV, FUNCTION RECEIVED FROM UNIVAC.
76      000400      TPM0 =. BIT8 ;XMIT, TRANSMIT PACKING MODE BIT 0.
77      001000      TPM1 =. BIT9 ;XMIT, TRANSMIT PACKING MODE BIT 1.
78      002000      TPM2 =. BIT10 ;XMIT, TRANSMIT PACKING MODE BIT 2.
79      100000      SSTU =. BIT15 ;XMIT, SEND STATUS TO UNIVAC WITH INTERRUPT.
80      :
81      : NUMBER OF UNITS.
82      :

```

ACC-HANDLER: MACRO-M1110 27-MAR-88 13:33 PAGE 8-1
EQUATED-SYMBOLS:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
83      000002      A$C11 == 2      ; TWO UNITS.
84      ;
85      ; RESTART REQUEST AND RESTART ACKNOWLEDGEMENT CODES.
86      ;
87      000052      RSTRC = 52      ; RESTART REQUEST
88      000070      RACK = 70      ; RESTART ACKNOWLEDGEMENT
89      ;
90      ; SPECIAL I/O FUNCTION CODES. THESE ARE ACTUALLY A REDEFINITION OF
91      ; EXISTING FUNCTION CODES.
92      ;
93      003000      IO:TFC = IO:MOD      ; TRANSMIT STATUS CODE
94      003400      IO:RFC = IO:RTC      ; RECEIVE FUNCTION CODE
95      ;
96      ; THE FOLLOWING SYMBOL IS DEFINED FOR THE CALL TO $INTSV WHICH IN
97      ; IN THE INTSV$ MACRO.
98      ;
99      000001      LD$AC = 1
100      ;
101      ; DEFINE RECEIVE AND TRANSMIT "CNTBL" TABLE OFFSETS.
102      ;
103      000000      RCV = 0      ; RECEIVE OFFSET
104      000002      XMT = 2      ; TRANSMIT OFFSET
```

ACC: HANDLE
LOCAL: DATA

MACRO: M1110 27-MAR-80 13:32: PAGE 9

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

106
107
108
109
110
111 000000 000000
112
113 000002
114 000006 000000
115
116
117
118 000010
119 000016
120 000024
121 000032
122 000040
123 000046
124
125
126
127 000054
128 000054 000116
129 000056 003052
130 000060 002760
131 000062 002734
132
133
134
135
136 000064 000001
137
138
139
140
141 000066 000000
142
143
144
145
146
147 000070 000000
148
149
150
151 000072 000 000 000
000075 000 000
152 000077 003
153 000100 003
154 000101 004
155 000102 003
156 000103 003
157 000104 000
158 000105 004
159 000106 000
160 000107 003
161 000110 004

```

; SBTTL: LOCAL DATA
; LOCAL DATA
;
; IF GT $$$C11-1
TEMP: .WORD 0 ;FOR THE INTSV$ MACRO
; ENDC
CNTBL: .BLKW $$$C11 ;LINKAGE BETWEEN FORK PROCESSES AND INTERRUPTS
NB.UHL: .WORD 0 ;UHL BLOCK COUNT
;
; ACINI DISPATCH TABLE
;
VEC: ENTRY IO.INL.RSTRT,0,0
ENTRY IO.WLB.XMIT,1,1
ENTRY IO.TFC.XMIT,1,0
ENTRY IO.PLB.RECEVE,1,1
ENTRY IO.RFC.RECEVE,1,0
ENTRY 0,0,0,0
;
; DRIVER'S DISPATCH TABLE
;
$ACTBL:
; .WORD ACINI ;DEVICE INITIATOR ENTRY POINT
; .WORD CANCEL ;CANCEL I/O OPERATION ENTRY POINT
; .WORD TIMEOUT ;TIME OUT ENTRY POINT
; .WORD POWER ;POWERFAIL ENTRY POINT
;
; RESTART FLAG. THIS FLAG IS SET WHEN A RESTART (IO.INL) MUST BE
; ISSUED ON THE RECEIVE LUN TO RE-INITIALIZE THE HANDLER AND LINE.
;
RESTRT: .WORD 1 ;HANDLER IS LOADED IN THE RESTART MODE
;
; THIS VARIABLE CONTAINS THE ADDRESS OF THE UCB WHICH IS REQUESTING
; A RESTART. AFTER THE RESTART IS COMPLETED THIS ADDRESS IS CLEARED.
;
RSTADD: .WORD 0
;
; FLAG INDICATES THAT THE ACC HARDWARE IS IN LOOP BACK MODE
; IN THIS MODE DMA'S DO NOT HAVE TO BE PRECEDED BY A FUNCTION
; OR STATUS WORD.
;
LOOPB: .WORD 0
;
; TABLE OF PACKING NOTES INDEXED BY TRANSACTION TYPE
;
PACK: .BYTE 0,0,0,0,0 ;TRANS. TYPE = 0,1,2,3,4
;
; .BYTE 3 ; = 5 QRY
; .BYTE 3 ; = 6 DOC
; .BYTE 4 ; = 7 PURGE
; .BYTE 3 ; = 8 REPLACE
; .BYTE 3 ; = 9 OVERLAY
; .BYTE 0 ; = 10
; .BYTE 4 ; = 11 READ
; .BYTE 0 ; = 12
; .BYTE 3 ; = 13 SUB-DOC
; .BYTE 4 ; = 14 DEL-SUB-DOC

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

ACC-HANDLER
LOCAL DATA

MACRO-M1110 27-MAR-80 13:32 PAGE 9-1

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

162 000111 000
163 000112 002
164 000113 000
165 000114 002
166

.BYTE 0
.BYTE 2
.BYTE 0
.BYTE 2
.EVEN

= 15.
= 16. REQ. MASS. UPDATE
= 17.
= 18. END MASS. UPDATE

```

168 .SBTTL--ACINI--- ENTRY POINT.
169 ;+
170 ; **ACINI-ACC-DRIVER-INITIATOR.
171 ;
172 ; THIS ROUTINE IS ENTERED FROM THE QUEUE I/O DIRECTIVE WHEN AN I/O
173 ; REQUEST IS QUEUED AND AT THE END OF A PREVIOUS I/O OPERATION TO
174 ; PROPAGATE THE EXECUTION OF THE DRIVER. IF THE SPECIFIED CONTROLLER
175 ; IS NOT BUSY, THEN AN ATTEMPT IS MADE TO DEQUEUE THE NEXT I/O
176 ; REQUEST. ELSE A RETURN TO THE CALLER IS EXECUTED. IF THE DEQUEUE
177 ; ATTEMPT IS SUCCESSFUL, THEN THE NEXT I/O OPERATION IS INITIATED.
178 ; A RETURN TO THE CALLER IS THEN EXECUTED.
179 ;
180 ; INPUTS:
181 ;
182 ; R5=ADDRESS OF THE UCB OF THE CONTROLLER TO BE INITIATED.
183 ;
184 ; OUTPUTS:
185 ;
186 ; IF THE SPECIFIED CONTROLLER IS NOT BUSY AND AN I/O REQUEST IS WAITING
187 ; TO BE PROCESSED, THEN THE REQUEST IS DEQUEUED AND THE I/O OPERATION IS
188 ; INITIATED.
189 ;
190 ;
191 000116 ACINI:
192 000116 CALL $GTPKT ;GET AN I/O PACKET TO PROCESS.
193 000122 103453 BCS RETTE ;IF C-SET CONTROLLER BUSY OR NO REQUEST.
194 ;
195 ; THE FOLLOWING ARGUMENTS ARE RETURNED BY $GTPKT.
196 ;
197 ; R1=ADDRESS OF THE I/O REQUEST PACKET.
198 ; R2=PHYSICAL UNIT NUMBER OF THE REQUEST UCB
199 ; R3=CONTROLLER INDEX.
200 ; R4=ADDRESS OF THE SCB.
201 ; R5=ADDRESS OF THE UCB.
202 ;
203 ;
204 ;
205 ; SAVE THE UCB ADDRESS FOR THE INTERRUPT ROUTINE.
206 ;
207 000124 010563 000002* MOV R5,CNTBL(R3)
208 ;
209 ; USE THE DISPATCH TABLE TO FIND OUT WHICH ROUTINE TO CALL.
210 ;
211 000130 1$:
212 000130 012700 000010* MOV #VEC,R0 ;R0->START OF DISPATCH TABLE
213 000134 5$:
214 000134 126110 000001G CMPB 1,FCH+1(R1),(R0) ;DOES INPUT FUNC MATCH TABLE ENTRY?
215 000140 BEQ 2$ ;YES, SEE IF ROUTINE CAN BE CALLED.
216 000142 TST (R0)+ ;IS THIS THE LAST ENTRY IN THE TABLE?
217 000144 BEQ 4$ ;YES, INVALID FUNC CODE.
218 000146 CMP (R0)+,(R0)+ ;NO, GO GET NEXT ENTRY.
219 000150 000071 BR 5$
220 ;
221 ; IF THE RESTART FLAG IS SET FOR THE ENTRY AND THE "RESTR" FLAG IS
222 ; SET, DO NOT CALL THE ROUTINE. ELSE CALL THE ROUTINE.
223 ;
224 000152 2$:

```

ACC-HANDLER MACRO-M1110 27-MAR-80 13:32 PAGE 10-1
ACINI:-- ENTRY-POINT

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
225 000152 105760 000004      TSTB 4(R0)      : IS THE RESTART FLAG SET FOR THE ENTRY ?
226 000156 001425              BEQ 3$           : YES, CALL RESTART
227 000160 005767 177704      TST LOOPB      : IF IN LOOP BACK MODE ANYTHING IS LEGIT
228 000164 001022              BNE 3$           : FLAG SET, SO GO ISSUE I/O
229 000166 005767 177672      TST RESTRT      : IS THE RESTART FLAG SET ?
230 000172 001012              BNE 7$           : YES, RETURN ERROR
231 000174 105760 000005      TSTB 5(R0)      : IS THE MUST BE ZERO BLOCK COUNT FLAG SET ?
232 000200 001004              BNE 6$           : NO, TRANSFER FUNCTION MUST HAVE +VE BLOCK COUNT
233 000202 005765 000000G     TST U:CW3(R5)    : YES, IS THE BLOCK COUNT ZERO ?
234 000206 001411              BEQ 3$           : YES, GO CALL FUNCTION
235 000210 000403              BR 7$           : NO, RETURN AN ERROR
236 000212                  6$:
237 000212 005765 000000G     TST U:CW3(R5)    : IS THE BLOCK COUNT ZERO FOR DMA OPERATIONS ?
238 000216 003005              BGT 3$           : NO, GO DO THE DMA OPERATION
239 000220                  7$:
240 000220 012700 000000G     MOV #IE,DNR,R0    : REPORT ERROR
241                                : SYSTEM IN RESTART AND WILL NOT ACCEPT
242                                : THIS FUNCTION, SO NOTIFY THE CALLING
243                                : TASK
244 000230 000732              CALL $I0DON      :
245 000232              BR ACINI               : GO SEE IF THERE ARE MORE I/O PACKETS
246                                :
247                                : A VALID FUNCTION CODE WAS FOUND AND IT PASSED THE PROPER RESTART
248                                : REQUIREMENTS, SO CALL THE ROUTINE
249 000232              3$:
250 000232 004770 000002      JSR PC,02(R0)      : CALL THE ROUTINE INDIRECTLY FROM THE
251                                : TABLE
252 000236 000727              BR ACINI          : GO GET ANOTHER I/O PACKET
253                                :
254                                : AN INVALID FUNCTION WAS FOUND, NOTIFY THE ERRING TASK
255                                :
256 000240                  4$:
257 000240 012700 000000G     MOV #IE,IFC,R0    :
258 000244              CALL $I0DON            :
259 000250 000722              BR ACINI          : GO GET ANOTHER I/O PACKET
260                                :
261                                : RETURN TO THE EXECUTIVE
262                                :
263 000252              RETTE: RETURN
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

265 .SBTTL- RSTRT--- SUBROUTINE.
266 ;+
267 ; **--RSTRT- RESTART ROUTINE.
268 ;
269 ; THIS ROUTINE RESTARTS THE ACC CHANNEL. THIS ROUTINE IS CALLED WHEN
270 ; A TASK REQUESTS A RESTART VIA AN IO INL. THIS REQUEST MUST BE ON THE
271 ; RECEIVE UNIT (UNIT 0). THE ROUTINE RESETS THE ACC HARDWARE, CLEARS ALL
272 ; THE ACC HARDWARE REGISTERS, SETS UP THE LOOP BACK MODE (IF NECESSARY)
273 ; SENDS THE RESTART CODE "RSTRTC" AND ENABLES THE INTERRUPTS.
274 ;
275 ; INPUTS:
276 ; R1=ADDRESS OF THE I/O REQUEST PACKET.
277 ; R2=PHYSICAL UNIT NUMBER OF THE REQUEST UCB
278 ; R3=CONTROLLER INDEX.
279 ; R4=ADDRESS OF THE SCB.
280 ; R5=ADDRESS OF THE UCB.
281 ;
282 ;
283 ; OUTPUTS:
284 ; THE SAME AS THE INPUTS EXCEPT R0 POINTS TO THE FIRST
285 ; CSR IN THE ACC HARDWARE REGISTER SET.
286 ;
287 ;-
288 ;
289 000254 RSTRT:
290 ;
291 ; IS THE I/O REQUEST ON UNIT 0? IF SO, CONTINUE, ELSE:
292 ; SEND ERROR BACK TO THE REQUESTING TASK AND RETURN TO
293 ; THE CALLING ROUTINE.
294 ;
295 000254 105765 000000G TSTB U,UNIT(R5) ;IS THE UNIT = 0 ?
296 000260 001405 BEQ 3$ ;YES CONTINUE
297 000262 012700 000000G MOV #1E,LHL,R0 ;NO, GIVE BAD STATUS BACK TO TASK
298 000266 CALL $10DON ;
299 000272 000473 BR 4$ ;EXIT
300 000274 ;
301 000274 016400 000000G 3$: MOV S,CSR(R4),R0 ;R0->FIRST ACC CSR
302 000300 052760 000004 000010 BIS *RESET,,CSR(R0) ;RESET THE ACC HARDWARE
303 000306 052760 000004 000010 BIS *RESET,,CSR(R0) ;KEEP DOING IT UNTIL IT SEES IT
304 000314 052760 000004 000010 BIS *RESET,,CSR(R0) ;DITTO
305 000322 105761 000000G TSTB I,FCN(R1) ;LOOPBACK REQUESTED ?
306 000326 001413 BEQ 1$ ;NO
307 ;
308 ; SET UP LOOP BACK
309 ;
310 000330 005267 177534 INC LOOPB ;SHOW WE ARE IN LOOP BACK MODE
311 000334 116103 000000G MOVB I,FCN(R1),R3 ;GET MODIFIER BYTE
312 000340 042703 177770 BIC #177770,R3 ;MASK OFF GARBAGE
313 000344 072327 0000002 ASH #2,R3 ;SHIFT UP TO PROPER BITS
314 000350 050360 0000000 BIS R3,R,CSR(R0) ;SET THE PROPER LOOP BACK MODE
315 000354 000402 BR 5$
316 000356 1$: CLR LOOPB ;SHOW THAT WE ARE NOT IN LOOP BACK
317 000356 005067 177506 5$:
318 000362 ;
319 ; SHOW THAT WE ARE IN THE RESTART MODE.
320 ;
321 ;

```

ACC-HANDLER. MACRO-M1110 27-MAR-80 13:32. PAGE 11-1
RSTRT-- SUBROUTINE.

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
322 000362 005065 000000G CLR U,CW3(R5) ; CLEAR RECEIVE BLOCK COUNT.
323 000366 005267 177472 INC RSTRT.
324 ;
325 ; LOAD THE RESTART CODE INTO THE XMIT STATUS REGISTERS.
326 ;
327 000372 SAVE R2,R3
328 000376 012702 000052 MOV #RSTRTC,R2 ; R2 = RESTART CODE (52)
329 000402 073227 177776 ASHC #-2,R2 ; SHIFT RIGHMOST 2 BITS TO R3
330 000406 010260 000032 MOV R2,T,EF0(R0) ; LOAD BITS 32-35
331 000412 010360 000030 MOV R3,T,EF1(R0) ; LOAD BITS 16-31
332 000416 005060 000026 CLR T,EF2(R0) ; LOAD BITS 0-15
333 000422 RESTOR R2,R3
334 000426 052760 100000 000034 BIS #SSTU,MCR(R0) ; SET THE GO BIT FOR THE WORD.
335 000434 010567 177426 MOV R5,RSTADD ; SAVE ADDR OF UCB RSTRT POST.
336 ;
337 ; SET THE TIME OUT FOR THE RECEPTION OF THE RESTART ACKNOWLEDGEMENT.
338 ; AND ENABLE INTERRUPTS.
339 ;
340 000440 116464 000000G 000000G MOVB S,ITM(R4),S,CTM(R4) ; SET THE TIME OUT.
341 000446 052760 000100 000010 BIS #INT,T,CSR(R0) ; ENABLE XMIT INTERRUPTS.
342 000454 052760 000100 000000 BIS #INT,R,CSR(R0) ; ENABLE RCV INTERRUPTS.
343 ;
344 ; RETURN TO THE CALLING ROUTINE.
345 ;
346 000462 4$
347 000462 RETURN
```

```

349          .SBTTL XMIT -- SUBROUTINE.
350          ;+
351          ;
352          ; **--XMIT - XMIT ROUTINE.
353          ;
354          ; THIS ROUTINE SETS UP TRANSMIT FUNCTIONS. THIS CAN INCLUDE BOTH
355          ; DMA AND SEND STATUS OPERATIONS. THE COMPLETION WILL BE HANDLED
356          ; IN THE XMIT ISR (XMITINT).
357          ; THE ROUTINE FIRST CHECKS TO SEE THAT THE TRANSMIT OPERATION IS ON
358          ; UNIT 1. IF NOT AN ERROR IS RETURNED TO THE REQUESTING TASK.
359          ; THE NUMBER OF DMA BLOCKS THAT IS TO BE OUTPUT IS NEXT CHECKED.
360          ; IF THIS IS NON ZERO FOR A SEND STATUS OPERATION AN ERROR IS
361          ; RETURNED TO THE CALLING TASK. ALSO IF THE NUMBER OF BLOCKS IS ZERO
362          ; AND IT IS A DMA OPERATION AN ERROR IS RETURNED TO THE CALLING
363          ; TASK. ELSE EITHER THE DMA OR SEND STATUS OPERATION IS SETUP.
364          ;
365          ; INPUTS:
366          ; R1=ADDRESS OF THE I/O REQUEST PACKET.
367          ; R2=PHYSICAL UNIT NUMBER OF THE REQUEST UCB
368          ; R3=CONTROLLER INDEX.
369          ; R4=ADDRESS OF THE SCB.
370          ; R5=ADDRESS OF THE UCB.
371          ;
372          ; REGISTER USAGE:
373          ;
374          ; R0 IS USED FOR SETTING UP DATA.
375          ; R3->ADDRESS OF THE FIRST ACC HARDWARE REGISTER.
376          ;
377          ; OUTPUTS:
378          ; R0 AND R3 ARE DESTROYED.
379          ;
380          ;-
381          ;
382          XMIT:
383          ;
384          ; IS THIS THE CORRECT UNIT? IT MUST BE UNIT 1 FOR XMIT OPERATIONS.
385          ;
386          000464 126527 000000G-000001    CMPB    U,UNIT(R5),#1
387          000472 001405                    BEQ     3$
388          000474 012700 100000G          MOV     U,BUF(R5),R0
389          000500                    CALL    IODONE
390          000504 000514                    BR      99$
391          000506                    ;EXIT
392          ;
393          ;
394          ;
395          000506 126127 000001G-000000C    CMPB    I,FCH+1(R1),#IO.WLB/256
396          000514 001055                    BNE     1$
397          ;
398          ; NO, IT MUST BE SEND STATUS.
399          ;
400          ; SETUP A DMA OPERATION.
401          ;
402          000516 016403 000000G          MOV     S,CSR(R4),R3
403          000522 016563 000002G-000014    MOV     U,BUF+2(R5),T.MA(R3)
404          000530 016500 000000G          MOV     U,BUF(R5),R0
405          000534 042700 177717          BIC     #177717,R0
406          000540 042763 000060 000010    BIC     #60,T.CSR(R3)
407          000546 050053 000010          BIS     R0,T.CSR(R3)
408          ;
409          ; R3->START OF ACC REGISTERS.
410          ; GET LOWER 16 BIT DMA ADDRESS.
411          ; SETUP EXTENSION BITS.
412          ; MASK OFF OTHER BITS.
413          ; CLEAR EXTENSION BITS.
414          ; PUT EXTENSION BITS INTO XMIT_CSR.

```

ACC-HANDLER. MACRO-M1116 27-MAR-80 13:32 PAGE 12-1
XMIT. -- SUBROUTINE.

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
486 000552 016100 000004G. MOV. I,PRM+4(R1),R0 ;GET XMIT-BYTE-COUNT
487 000556 032700 000001 BIT. #BIT0,R0 ;DDD-BYTE-COUNT?
488 000562 BOFF. 50$ ;NO, CONTINUE
489 000564 012700 000000G. MOV. #IE,BAD,R0 ;YES, REPORT-BAD-PARAMETER
490 000570 CALL. IDONE.
491 000574 000460 BR. 99$ ;AND EXIT
492 000576 006200 50$: ASR. R0 ;CONVERT-BYTES-TO-WORDS
493 000600 010063 000016 MOV. R0,T,WC(R3) ;PUT-TRANSMIT-WORD-COUNT
494 000604 016100 010006G. MOV. I,PRM+6(R1),R0 ;GET-THE-PACKING-MODE
495 000610 042700 177770 BIC. #17770,R0 ;MASK-OFF-ANY-GARBAGE
496 000614 072027 000010 ASH. #8,R0 ;SHIFT-FOR-MCR
497 000620 042763 003400 000034 BIC. #3400,MCR(R3) ;CLEAR-BITS-8,9-AND-10
498 000626 050063 000034 BIS. R0,MCR(R3) ;SET-INTO-MCR-(BITS-8,9-AND-10)
499 000632 052763 000001 000010 BIS. #DMAG0,T,CSR(R3) ;TELL-HARDWARE-TO-SEND-DATA
500 000640 116464 000000G.000000G. MOV. S,ITM(R4),S,CTM(R4) ;SET-THE-TIME-OUT
501 000646 000433 BR. 99$ ;GO-EXIT
502
503 ;
504 ; OUTPUT-A 36 BIT-STATUS-WORD-TO-THE-UNIVAC.
505 ;
506 424
507 425 000650 1$: CALL. SETAPR. ;SETUP-THE-APR-TO-MAP-INTO
508 426 000650 ;THE-TASKS-MEMORY-AREA
509 427
510 428 000654 016400 000000G. MOV. S,CSR(R4),R3 ;R3->FIRST-ACC-REGISTER
511 429 000660 012063 000032 MOV. (R0)+,T,EF0(R3) ;GET-FIRST-WORD-OF-STATUS
512 430 000664 012063 000030 MOV. (R0)+,T,EF1(R3) ;GET-SECOND-WORD-OF-STATUS
513 431 000670 011063 000026 MOV. (R0)+,T,EF2(R3) ;GET-THIRD-WORD-OF-STATUS
514 432 000674 012667 000000G. MOV. (SP)+,K1$AR6 ;RESTORE-APR-6
515 433
516 434
517 435 ;
518 ; GET-THE-BLOCK-COUNT-FROM-THE 36 BIT-FUNCTION.
519 ;
520 436 000700 016300 000030 MOV. T,EF1(R3),R0
521 437 000704 042700 140000 BIC. #140000,R0 ;MASK-OFF-OTHER-INFO
522 438 000710 072027 177776 ASH. #+2,R0 ;RIGHT-JUSTIFY
523 439 000714 010065 000000G. MOV. R0,U,CW3(R5) ;STORE-IN-WORD-COUNT-AREA
524 440
525 441 ;
526 442 ; SETUP-THE-TIME-OUT
527 443 000720 116464 000000G.000000G. MOV. S,ITM(R4),S,CTM(R4)
528 444
529 445 ;
530 446 ; TELL-HARDWARE-TO-SEND-THE-STATUS
531 447 000726 052763 100000 000034 BIS. #6STU,MCR(R3)
532 448 000734 000400 BR. 99$ ;EXIT
533 449
534 450 ;
535 451 ; RETURN-TO-CALLING-ROUTINE
536 452 000736 99$:
537 453 000736 RETURN.
538 454
539 455 ;
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

457 .SBTTL--RECEIVE--- SUBROUTINE.
458 ;+
459 ;
460 ; **--RECEIVE-- PROCESS A NEW RECEIVE I/O PACKET.
461 ;
462 ; THE PURPOSE OF THE RECEIVE ROUTINE IS TO SETUP THE ACC
463 ; HARDWARE TO RECEIVE EITHER A 36 BIT EXTERNAL FUNCTION OR
464 ; BLOCK OF WORDS (16 BIT) VIA THE RECEIVE DMA. IF A REQUEST
465 ; TO RECEIVE A FUNCTION IS ISSUED WHILE THE HANDLER IS IN THE
466 ; PROCESS OF INPUTTING ONE OR MORE DMA BLOCKS, THE REQUEST IS
467 ; REJECTED. IF AN APPLICATION TASKS TRY'S TO ISSUE A DMA
468 ; OPERATION BEFORE THE FUNCTION REQUEST IS ISSUED, THE DMA
469 ; OPERATION IS REJECTED.
470 ;
471 ; SINCE AN EXTERNAL FUNCTION CAN BE RECEIVED BEFORE THE EXECUTIVE
472 ; GIVES THE I/O PACKET TO THE HANDLER, THE RECEIVE
473 ; ROUTINE WILL CHECK TO SEE IF A FUNCTION HAS BEEN INPUT. IF
474 ; ONE HAS BEEN INPUT, IT IS IMMEDIATELY RETURNED TO THE
475 ; REQUESTING TASK. IF THE INPUT FUNCTION IS A RESTART REQUEST
476 ; FROM THE UNIVAC, AN ERROR IS RETURNED TO THE APPLICATION
477 ; TASK. THEN THE TRANSMIT ROUTINE IS NOTIFIED OF A RESTART.
478 ;
479 ;
480 ; INPUTS:
481 ; R1=ADDRESS OF THE I/O REQUEST PACKET.
482 ; R2=PHYSICAL UNIT NUMBER OF THE REQUEST UCB
483 ; R3=CONTROLLER INDEX.
484 ; R4=ADDRESS OF THE SCB.
485 ; R5=ADDRESS OF THE UCB.
486 ;
487 ;
488 ; REGISTER USAGE:
489 ;
490 ; R0 IS USED FOR SETTING UP DATA.
491 ; R3->FIRST ACC. HARDWARE ADDRESS.
492 ;
493 ;
494 ; OUTPUTS:
495 ; R0 AND R3 ARE DESTROYED.
496 ;
497 ;-
498 ;
499 000740 RECEIVE:
500 ;
501 ; FIRST CHECK TO SEE IF THIS IS UNIT 0. IF NOT RETURN AN ERROR.
502 ;
503 000740 105765 000000G TSTB UUNIT(R5)
504 000744 001405 BEQ 1$ ;NO ERROR.
505 000746 012700 000000G MOV #1E,ILU,R0 ;YES THERE IS AN ERROR.
506 000752 CALL 10D0NE ;RETURN ERROR TO TASK.
507 000756 000463 BR 99$ ;GO RETURN
508 000760
509 1$:
510 ;
511 ; CHECK TO SEE IF A DMA OPERATION IS REQUESTED.
512 000760 016403 000000G MOV S,CSR(R4),R3 ;R3->1ST ACC. HARDWARE REGISTER
513 000764 126127 000001G-000000C CMPB 1,FCH+1,R1),#10,RLB/256.; IS THIS A DMA OP. REQUEST?

```


ACC-HANDLER: MACRO-M1110 27-MAR-80 13:32 PAGE 13-1
RECEVE--- SUBROUTINE

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
514 000772 001040      BNE 2$      ;NO.
515      ;      BIT  #FRFUC,MCR(R3)      ;YES, FUNCTION INPUT ?
516      ;      BEQ 3$      ;NO.
517      ;      BIC  #FRFUC,MCR(R3)      ;YES, REPORT ERROR.
518      ;      MOV  #IE,CNR,R0
519      ;      CALL IODONE
520      ;      BR   50$      ;GO-FINISH ERROR-REPORTING.
521 000774      3$:
522      ;
523      ; SET-UP-FOR-DMA-INPUT.
524      ;
525 000774      4$:
526 000774 016563 000002G-000004      MOV  U,BUF+2(R5),R,MA(R3)      ;GET-LOWER 16-BIT-ADDRESS.
527 001002 016500 000000G      MOV  U,BUF(R5),R0      ;GET-UPPER 2-BITS-OF 18-BITS.
528 001006 042700 177717      BIC  #177717,R0      ;MASK-OFF-GARBAGE.
529 001012 042763 000060 000000      BIC  #60,R,CSR(R3)      ;CLEAR-EXTENSION-BITS.
530 001020 050063 000000      BIS  R0,R,CSR(R3)      ;PLACE-INTO-EXTENSION-BITS.
531      ;      MOV  I,PRM+6(R1),R0      ;GET-PACKING-MODE.
532      ;      BIC  #177770,R0      ;MASK-OFF-GARBAGE.
533      ;      BIC  #7,MCR(R3)      ;CLEAR-BITS-0, 1 AND 2.
534      ;      BIS  R0,MCR(R3)      ;PUT-INTO-PACKING-MODE-BITS.
535 001024 016100 000004G      MOV  I,PRM+4(R1),R0      ;GET-THE-INPUT-BYTE-COUNT.
536 001030 032700 000001      BIT  #BIT0,R0      ;ODD-BYTE-COUNT?
537 001034      BOFF 40$      ;NO-CONTINUE.
538 001036 012700 000000G      MOV  #IE,BAD,R0      ;YES, REPORT-BAD-PARAMETER.
539 001042      CALL IODONE
540 001046 000415      BR   50$
541 001050 006200      40$:
542 001052 010063 000006      ASR  R0      ;CONVERT-BYTES-TO-WORDS.
543 001056 052763 000001 000000      MOV  R0,R,WC(R3)      ;PUT-RECEIVE-WORD-COUNT.
544 001064 116464 000000G-000000G      BIS  #DMA0,R,CSR(R3)      ;ACTIVATE-THE-DMA.
545 001072 000415      MOV  S,ITM(R4),S,CTM(R4)      ;SET-THE-TIME-OUT.
546      ;      BR   99$      ;GO-EXIT.
547      ;
548      ; PROCESS-FUNCTION-REQUESTS.
549 001074      2$:
550 001074      CALL FUNCT
551 001100 000412      BR   99$      ;GO-EXIT.
552      ;
553      ; FINISH-PROCESSING-ERRORS-BY-SETTING-THE-RESTART-FLAG-AND-INDUCING
554      ; AN-ERROR-INTERRUPT-IN-THE-TRANSMIT-SIDE.
555      ;
556 001102      50$:
557 001102 042763 000100 000010      BIC  #INT,T,CSR(R3)      ;DISABLE-TRANSMIT-AND-RECEIVE
558 001110 042763 000100 000000      BIC  #INT,R,CSR(R3)      ;...INTERRUPTS.
559 001116 012700 000002      MOV  #XMT,R0      ;TELL-XMIT-THAT-ERROR-WAS-DETECTED.
560 001122      CALL SETERR
561      ;
562      ; RETURN-TO-THE-CALLING-ROUTINE.
563      ;
564 001126      99$:
565 001126      RETURN
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

567 .SBTTL FUNCT--- SUBROUTINE.
568 ;+
569 ;
570 ; *--FUNCT-- PROCESS NEW RECEIVE FUNCTION REQUESTS.
571 ;
572 ; THIS ROUTINE TAKES A NEW I/O REQUEST FOR AN INPUT FUNCTION
573 ; AND PERFORMS ONE OF THE FOLLOWING ACTIONS:
574 ;
575 ; 1) NOTHING. THE RECEIVE INTERRUPT WILL RETURN THE
576 ; FUNCTION WHEN IT IS INPUT.
577 ;
578 ; 2) IF A FUNCTION IS ALREADY WAITING, IT WILL
579 ; IMMEDIATELY BE RETURNED TO THE APPLICATION TASK.
580 ;
581 ; 3) IF A FUNCTION IS WAITING AND IT IS A RESTART
582 ; REQUEST, AN ERROR WILL BE RETURNED TO THE
583 ; APPLICATION TASK AND AN ERROR INTERRUPT
584 ; GENERATED FOR THE XMIT SIDE.
585 ;
586 ; INPUTS:
587 ; R1=ADDRESS OF THE I/O REQUEST PACKET.
588 ; R2=PHYSICAL UNIT NUMBER OF THE REQUEST UCB
589 ; R3=CONTROLLER INDEX.
590 ; R4=ADDRESS OF THE SCB.
591 ; R5=ADDRESS OF THE UCB.
592 ;
593 ;
594 ;
595 ; REGISTER USAGE:
596 ;
597 ; R0 IS USED FOR SETTING UP DATA.
598 ; R3->THE FIRST ACC-HARDWARE ADDRESS.
599 ;
600 ; OUTPUTS:
601 ;
602 ; R0 AND R3 ARE DESTROYED.
603 ;
604 ;-
605 ;
606 001130 FUNCT:
607 001130 016403 000000G. MOV. S,CSR(R4),R3 ;R3->FIRST ACC-HARDWARE ADDRESS.
608 001134 1$:
609 ;
610 ; WAS AN EMERGENCY FUNCTION SENT BY THE UNIVAC.
611 ;
612 001134 032763 010000 000000 BIT. #DPBF,R,CSR(R3) ;FUNCTION INPUT OVER A DMA?
613 001142 001410 BEQ. 2$ ;NO.
614 001144 012700 000000G. MOV. #IE,CNR,R0 ;YES, RETURN ERROR
615 001150 CALL. IODONE.
616 001154 042763 010000 000000 BIC. #DPBF,R,CSR(R3) ;CLEAR THE BIT.
617 001162 000525 BR. 50$ ;GO PROCESS THE REST OF THE ERROR.
618 001164 2$:
619 ;
620 ; IS A FUNCTION WAITING FOR THE I/O PACKET THAT WAS JUST INPUT?
621 ;
622 001164 032763 000200 000034 BIT. #FRFUC,MCR(R3)
623 001172 001534 BEQ. 90$ ;NO, RETURN, RCV ISR WILL HANDLE

```

ACC-HANDLER: MACRO-M1110 27-MAR-80 13:32 PAGE 14-1
FUNCT.-- SUBROUTINE.

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
624 001174          CALL SETAPR          ;YES, MAP INTO TASKS AREA.
625 001200 016320 000024      MOV R,EF0(R3),(R0)+ ;MOVE 36 BIT INPUT FUNCTION INTO.
626 001204 016320 000022      MOV R,EF1(R3),(R0)+ ;TASK'S BUFFER.
627 001210 016310 000020      MOV R,EF2(R3),(R0)
628 001214 012667 000000G    MOV (SP)+,K(SAR6) ;RESTORE THE OLD APR E
629
630 ;
631 ; SET-UP RECEIVE PACKING MODE BITS (0,1 AND 2) IN MCR.
632 001220 010146          MOV R1, (SP) ;SAVE R1
633 001222 016300 000024      MOV R,EF0(R3),R0 ;R0 = BITS 32-47
634 001226 016301 000022      MOV R,EF1(R3),R1 ;R1 = BITS 16-31
635 001232 073027 000002      ASHC #2,R0 ;R0 = TRANSACTION TYPE.--
636 ; -- BITS 30-35
637 001236 042700 177700      BIC #177700,R0 ;JUST TO MAKE SURE
638 001242 005067 176540      CLR NB,UHL ;NO UHL BLOCKS
639 001246 022700 000005      CMP #5,R0
640 001252 001003          BNE 4$ ;IF NOT QUERY, IGNORE UHL
641 001254 012767 177777 176524      MOV #~1,NB,UHL ;IF QUERY, SET UHL FLAG
642 001262 116000 000072      MOV NB,UHL ;R0 = PACKING MODE
643 001266 042700 177400      BIC #177400,R0
644 ;
645 001272 042763 000007 000034      BIC #7,MCR(R3) ;CLEAR PREVIOUS PACKING MODE BITS
646 001300 050063 000034      BIS P0,MCR(R3) ;SET PACKING MODE BITS
647 001304 012601          MOV (SP)+,R1 ;RESTORE R1
648 ;
649 001306 042763 000200 000034      BIC #FRFUC,MCR(R3) ;CLEAR THE INPUT NOTICE BIT
650 ;
651 ; GET THE DMA BLOCK COUNT FROM THE 36 BIT FUNCTION THAT WAS INPUT
652 ;
653 001314 016300 000022      MOV R,EF1(R3),R0
654 001320 042700 140000      BIC #140000,R0
655 001324 072027 177776      ASH #2,R0
656 001330 010065 000000G    MOV R0,U,CW3(R5)
657 001334 005767 176446      TST NB,UHL
658 001340 001410          BEQ 5$ ;IGNORE IF UHL FLAG NOT SET
659 001342 010067 176440      MOV R0,NB,UHL ;CALCULATE UHL BLOCK SIZE
660 001346 016300 000020      MOV R,EF2(R3),R0 ;QUERY SIZE
661 001352 042700 177400      BIC #177400,R0
662 001356 160067 176424      SUB R0,NB,UHL
663 ;
664 ; CHECK TO SEE IF THE INPUT FUNCTION WAS A RESTART REQUEST.
665 ;
666 001362          S$: SAVE R1
667 001364 016300 000024      MOV R,EF0(R3),R0 ;R0 = BITS 32-35
668 001370 016301 000022      MOV R,EF1(R3),R1 ;R1 = BITS 16-31
669 001374 073027 000002      ASHC #2,R0 ;R0=INPUT FUNCTION (BITS 30-35)
670 001400 022700 000052      CMP #RSTRTC,R0 ;RESTART REQUEST?
671 001404 001006          BNE 3$ ;NO IT WAS NOT
672 001406          RESTOR R1
673 001410 012700 000000G    MOV #IE,CHR,R0 ;YES, RETURN AN ERROR
674 001414          CALL IDONE
675 001420 000406          BR 50$
676 001422          RESTOR R1 ;GO PROCESS THE REST OF THE ERROR
677 001424 012700 000000G    3$: MOV #IS,SUC,R0
678 001430          CALL IDONE ;GOOD INPUT, GIVE GOOD STATUS RETURN
679 001434 000415          BR 99$ ;GO RETURN TO CALLING ROUTINE
680
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

ACC-HANDLE MACRO-M1110 27-MAR-88 13:32 PAGE 14-2
FUNCT---ROUTINE

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
681 ; AN ERROR WAS DETECTED. CAUSE AN ERROR INTERRUPT IN ON THE TRANSMIT.
682 ; SIDE OF THE HANDLER.
683 ;
684 001436 50$:
685 001436 042763 000100 000010 BIC *INT.T.CSR(R3) ;DISABLE XMIT AND RCV INTS.
686 001444 042763 000100 000000 BIC *INT.R.CSR(R3)
687 001452 012700 000002 MOV *XMT,R0 ;TELL XMIT THAT ERROR WAS DETECTED.
688 001456 CALL SETERR
689 001462 000402 BR 99$
690 ;
691 ; DO NOT ALLOW TIME OUTS FOR RECEPTION OF FUNCTION WORDS.
692 ;
693 001464 90$:
694 001464 105064 000000G CLRB S,CTM(R4) ;CLEAR TIME OUT COUNT. THIS...
695 ; ...INHIBITS THE TIME OUT...
696 ; ...MECHANISM.
697 ;
698 ; RETURN TO CALLING ROUTINE.
699 ;
700 001470 99$:
701 001470 RETURN
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

XMTINT (\$ACOUT) -- ENTRY POINT

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

783                                     .SBTTL XMTINT ($ACOUT) -- ENTRY POINT.
784                                     ;+
785                                     ;
786                                     ; **--XMTINT ($ACOUT) -- ENTRY POINT.
787                                     ;
788                                     ; THE PURPOSE OF THE "XMTINT" ROUTINE IS TO HANDLE THE INTERRUPTS.
789                                     ; THAT RESULT FROM SEND (ING EITHER A 36 BIT STATUS WORD OR BLOCK
790                                     ; OF WORDS (16 BIT) VIA THE DMA.
791                                     ;
792                                     ; THE "XMTINT" ISR HANDLES TWO TYPES OF INTERRUPTS:
793                                     ;
794                                     ;     1) DMA DONE.
795                                     ;     2) STATUS SENT.
796                                     ;
797                                     ; INPUTS:
798                                     ;     AFTER THE CALL TO INTSV$ R4 CONTAINS THE CONTROLLER INDEX.
799                                     ;     AND R5 CONTAINS A POINTER TO THE UCB.
800                                     ;
801                                     ; REGISTER USAGE:
802                                     ;     R4 AND R3 POINT TO THE FIRST ACC HARDWARE REGISTER.
803                                     ;     R2 CONTAINS THE ADDRESS OF EITHER THE FRIST XMIT OR RCV.
804                                     ;     CSR.
805                                     ;     R0 CONTAINS AN ERROR CODE WHEN "IDONE" IS CALLED.
806                                     ;
807                                     ; OUTPUTS:
808                                     ;     NONE.
809                                     ;
810                                     ;-
811                                     ;
812                                     $ACOUT:
813                                     XMTINT:
814                                     INTSV$ AC,PRS,A$C11
815                                     MOV. #2,R4
816                                     MOV. CNTBL(R4),R5
817                                     MOV. U.SCB(R5),R4
818                                     MOV. S.CSR(R4),R4
819                                     BIC. #INT,T.CSR(R4)
820                                     BIC. #INT,R.CSR(R4)
821                                     CALL. $FORK
822                                     MOV. R4,R3
823                                     MOV. R4,R2
824                                     ADD. #T.CSR,R2
825                                     TST. RSTADD
826                                     BNE. 2$
827                                     ;
828                                     ; IGNORE SPURIOUS INTERRUPT.
829                                     ;
830                                     MOV. U.SCB(R5),R4
831                                     TSTB. S.STS(R4)
832                                     BEQ. 2$
833                                     ;
834                                     ; CHECK TO SEE IF THERE WAS AN ERROR.
835                                     ;
836                                     CALL. CKERR
837                                     BCC. 1$
838                                     ;
839                                     ; AN ERROR WAS DETECTED, INDUCE AN ERROR INTO THE RCV SIDE.
840                                     ;
841                                     ; ENTRY POINT FOR THE EXECUTIVE
842                                     ;:: INTERNAL ACC HANDLER ENTRY POINT.
843                                     ;:: GET UCB ADDRESS
844                                     ;:: FORCE R4 TO BE XMIT-OFFSET IN CNTBL.
845                                     ;:: R5->XMIT-UCB
846                                     ;:: R4->SCB
847                                     ;:: R4->FIRST ACC HARDWARE REGISTER.
848                                     ;:: DISABLE BOTH ACC RCV AND XMIT...
849                                     ;:: ... INTERRUPTS.
850                                     ;:: MAKE THE HANDLER INTERRUPTABLE.
851                                     ;:: R3->FRIST ACC HARDWARE REGISTER.
852                                     ;:: R2->FIRST ACC HARDWARE XMIT.
853                                     ;:: ... CSR.
854                                     ;:: RESTART?
855                                     ;:: YES.
856                                     ; IF UNIT IS NOT ACTIVE,
857                                     ; IGNORE INTEPUPT.
858                                     ; NO, THERE WAS NOT AN ERROR.
859                                     ;
860                                     ;
861                                     ;
862                                     ;
863                                     ;
864                                     ;
865                                     ;
866                                     ;
867                                     ;
868                                     ;
869                                     ;
870                                     ;
871                                     ;
872                                     ;
873                                     ;
874                                     ;
875                                     ;
876                                     ;
877                                     ;
878                                     ;
879                                     ;
880                                     ;
881                                     ;
882                                     ;
883                                     ;
884                                     ;
885                                     ;
886                                     ;
887                                     ;
888                                     ;
889                                     ;
890                                     ;
891                                     ;
892                                     ;
893                                     ;
894                                     ;
895                                     ;
896                                     ;
897                                     ;
898                                     ;
899                                     ;
900                                     ;
901                                     ;
902                                     ;
903                                     ;
904                                     ;
905                                     ;
906                                     ;
907                                     ;
908                                     ;
909                                     ;
910                                     ;
911                                     ;
912                                     ;
913                                     ;
914                                     ;
915                                     ;
916                                     ;
917                                     ;
918                                     ;
919                                     ;
920                                     ;
921                                     ;
922                                     ;
923                                     ;
924                                     ;
925                                     ;
926                                     ;
927                                     ;
928                                     ;
929                                     ;
930                                     ;
931                                     ;
932                                     ;
933                                     ;
934                                     ;
935                                     ;
936                                     ;
937                                     ;
938                                     ;
939                                     ;
940                                     ;
941                                     ;
942                                     ;
943                                     ;
944                                     ;
945                                     ;
946                                     ;
947                                     ;
948                                     ;
949                                     ;
950                                     ;
951                                     ;
952                                     ;
953                                     ;
954                                     ;
955                                     ;
956                                     ;
957                                     ;
958                                     ;
959                                     ;
960                                     ;
961                                     ;
962                                     ;
963                                     ;
964                                     ;
965                                     ;
966                                     ;
967                                     ;
968                                     ;
969                                     ;
970                                     ;
971                                     ;
972                                     ;
973                                     ;
974                                     ;
975                                     ;
976                                     ;
977                                     ;
978                                     ;
979                                     ;
980                                     ;
981                                     ;
982                                     ;
983                                     ;
984                                     ;
985                                     ;
986                                     ;
987                                     ;
988                                     ;
989                                     ;
990                                     ;
991                                     ;
992                                     ;
993                                     ;
994                                     ;
995                                     ;
996                                     ;
997                                     ;
998                                     ;
999                                     ;
1000                                    ;

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

ACC-HANDLE MACRO-M1110 27-MAR-00 13:32 PAGE 15-1
XMTINT-(\$OUT) -- ENTRY-POINT

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
760 ;
761 001574 012700 000000 ; MOV. #RCV,R0 ; TELL-RCV-THAT-ERROR-WAS-DETECTED-
762 001600 ; CALL. SETERR ;
763 001604 000437 ; BR 99$ ; GO-GET-ANOTHER-PACKET-
764 ;
765 ; NO-I/O-ERRORS-
766 ;
767 001606 016401 000000G. 1$: MOV. S.PKT(R4),R1
768 001612 126127 000001G. 000000C. CMPB. 1.FCN+1(R1),#IO:WLB/256. ; WLB-?-
769 001620 001013 000000G. 000000C. BNE. 3$ ; BRANCH-IF-NO-
770 001622 032763 000200 000010 BIT. #DMADON,T.CSR(R3) ; DMA-COMPLETED?-
771 001630 001630 000000G. 000000C. BOFF. 2$ ; BRANCH-IF-NO-
772 001632 032763 001000 000010 BIT. #WCEZ,T.CSR(R3)
773 001640 001640 000000G. 000000C. BOFF. 2$
774 001642 005365 000000G. 000000C. DEC. U.CW3(R5) ; DEC-OUTPUT-BLOCK-COUNT-
775 001646 000404 000000G. 000000C. BR 4$ ; THEN-COMplete-I/O-
776 ;
777 ; FUNCTION-COMPLETION-?-
778 ;
779 001650 032763 100000 000034 3$: BIT. #SSTU,MCR(R3) ; FUNCTION-SENT?-
780 001656 001656 000000G. 000000C. BON. 2$ ; BRANCH-IF-NOT-YET-
781 001660 012700 000000G. 000000C. 4$: MOV. #IS,SUC,R0 ; RETURN-GOOD-STATUS-
782 001664 001664 000000G. 000000C. CALL. IODONE-
783 ;
784 001670 001670 000000G. 000000C. 2$: BIS. #INT,T.CSR(R3) ; ENABLE-INTERRUPTS-
785 001670 052763 000100 000010 BIS. #INT,R.CSR(R3)
786 001676 052763 000100 000000G. 000000C.
787 ;
788 ; GO-AND-SEE-IF-THERE-ARE-ANYMORE-I/O-PACKETS-TO-BE-PROCESSED-FOR-THIS
789 ; (POINTED-TO-BY-R5) UNIT.
790 ;
791 001704 000167 176206 99$: JMP. ACINI-
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

ACC-HANDLER MACRO.M1110 27-MAR-80 13:32 PAGE 16
RCVINT:(\$ACINP) -- ENTRY POINT

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
794 .SBTTL:RCVINT:($ACINP) -- ENTRY POINT.
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822 001710
823 001710
824 001710
825
826 001714 005004
827 001716 016405 000002
828
829 001722 010046
830 001724 016504 000000G
831 001730 062704 000000G
832 001734 016700 000000G
833 001740 001407
834 001742 020004
835 001744 001003
836 001746 012600
837 001750 000167 000000G
838
839 001754 011000
840 001756 001371
841 001760 012606
842
843 001762 016504 000000G
844 001766 016404 000000G
845 001772 042764 000100 000010
846 002000 042764 000100 000000
847 002006
848 002012 010403
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
```

RCVINT:(\$ACINP) -- ENTRY POINT.

THE PURPOSE OF THE "RCVINT" ROUTINE IS TO SORT OUT FOUR TYPES OF RECEIVE INTERRUPTS:

- 1) DMA DONE.
- 2) FUNCTION INPUT.
- 3) THE UNIVAC IS TRYING TO SEND A BLOCK OF DATA BUT NO QIO HAS BEEN ISSUED, AND
- 4) THE XMTINT ISR HAS GENERATED AN ERROR INTERRUPT.

INPUTS:

AFTER THE CALL TO INTSV\$ R5 CONTAINS THE ADDRESS OF THE UCB.

REGISTER USAGE:

R0 IS USED TO PASS ERROR CODES TO "IODONE"

R5->UCB.

R3->FIRST ACC HARDWARE REGISTER

R4->SCB.

OUTPUTS:

NONE.

RCVINT:

INTSV\$ AC,PR7,A\$\$C11

NEED TO MANIPULATE FORK QUEUE AT PRIORITY 7

CLR R4

MOV CNTBL(R4),R5

SEE IF WE'RE ALREADY IN FORK QUEUE - IF SO DON'T FORK AGAIN.

MOV R0, -(SP)

MOV U.SCB(R5),R4

ADD #5,FRK,R4

MOV #FRKHD,R0

BEQ ITSOK

1\$: CMP R0,R4

BNE 2\$

MOV (SP)+,R0

JMP \$INTXT

2\$: MOV (R0),R0

BNE 1\$

ITSOK: MOV (SP)+,R0

MOV U.SCB(R5),R4

MOV S.CSR(R4),R4

BIC #INT.T.CSR(R4)

BIC #INT.R.CSR(R4)

CALL \$FORK

MOV R4,R3

CHECK TO SEE IF THERE WAS AN HARDWARE ERROR.

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

851
852 002014 010302
853 002016 062702 000000
854 002022
855 002026 103006
856
857
858
859
860 002030 012700 000002
861 002034
862 002040 000167 000530
863
864
865
866 002044
867 002044 032763 010000 000000
868 002052
869 002054 032763 000200 000034
870 002062
871
872
873
874
875
876 002064 032763 000100 000034
877 002072 001413
878 002074 042763 000100 000034
879 002102 052763 000100 000010
880 002110 052763 000100 000000
881 002116 000167 000452
882 002122
883 002122
884 002126 000167 000442
885
886
887
888
889
890
891 002132
892 002136 016300 000024
893 002142 016301 000022
894 002146 073027 000002
895 002152 022700 000052
896 002156 001016
897 002160
898 002164 012700 000000G
899 002170
900 002174 005767 175664
901 002200 001167
902 002202 012700 000002
903 002206
904 002212 000562
905
906
907

```

```

;
MOV. R3,R2. ;R2->FRIST ACC-HARDWARE REGISTER
ADD. #R.CSR,R2. ;R2->RCV.CSR
CALL. CKERR. ;CHECK FOR AN HARDWARE REGISTER
BCC. 1$ ;NO ERROR
;
; ERROR DETECTED. INVOKE AN ERROR IN THE XMIT SIDE OF THE HANDLER IF
; THE RESTART FLAG IS NOT SET.
;
MOV. #XMT,R0 ; TELL XMIT THAT ERROR WAS DETECTED
CALL. SETERR
JMP. 99$
;
; CHECK TO SEE IF A DMA OR FUNCTION WAS INPUT.
;
1$:
BIT. #DPBF,R.CSR(R3) ;FUNC OVERRODE THE DMA ?
BON. 8$ ;BRANCH IF YES
BIT. #RFUC,MCR(P3) ;FUNC INPUT ?
BON. 2$ ;YES
;
; DMA WAS INPUT. IF BIT 6 OF THE MCR IS SET IT INDICATES THAT THE
; UNIVAC IS TRYING TO SEND A DMA BLOCK BUT THERE IS NO ACTIVE QIO.
; IF THIS IS TRUE IT IS IGNORED UNTIL THE TASK ISSUES A QIO.
;
11$:
BIT. #DA,MCR(R3) ;IS BIT SET?
BEQ. 3$ ;NO
BIC. #DA,MCR(R3) ;YES, NOW CLEAR THE BIT
BIS. #INT.T.CSR(R3) ;NOW ENABLE INTERRUPTS
BIS. #INT.R.CSR(R3) ;...
JMP. 99$
;
3$:
CALL. DMA
JMP. 99$
;
; FUNCTION WAS INPUT. IF IT WAS A RESTART REQUEST AND THE HANDLER IS NOT
; IN THE RESTART MODE, THEN SET THE RESTART FLAG AND NOTIFY THE XMIT SIDE
; VIA N INTERRUPT FROM BIT 13 OF THE XMIT CSR. IF WE ARE ALREADY IN A
; RESTART MODE, RETURN A BAD STATUS AND WAIT FOR A TASK TO CAUSE A RESTART.
;
2$:
SAVE. R0,R1
MOV. R.EF0(R3),R0 ;R0 = BITS 32-35
MOV. R.EF1(R3),R1 ;R1 = BITS 16-31
ASHC. #2,R0 ;R0=INPUT FUNCTION (BITS 30-35)
CIP. #RSTRC,R0 ;RESTART REQUEST ?
BNE. 5$ ;NO
RSTRC. R0,R1
MOV. #IE,CNR,R0 ;YES, RETURN ERROR STATUS
CALL. IDONE
TST. RSTRC
BNE. 31$ ;IS THE RESTART FLAG SET
MOV. #XMT,R0 ;YES, GET READY TO EXIT
CALL. SETERR ;TELL XMIT THAT ERROR WAS DETECTED
BR. 31$
;
; CHECK TO SEE IF WE HAVE A RESTART ACKNOWLEDGEMENT. IF NOT IT IS A NORMAL
; FUNCTION INPUT. THIS INTERRUPT ENTRY POINT CAN GET AN EXTRA RESTART ACK.

```


ACC-HANDLER: MACRO-M1110 27-MAR-80 13:32 PAGE 16-2.
RCVINT: (\$ACINP) -- ENTRY POINT

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
908      ; THIS OCCURS WHEN BOTH THE UNIVAC AND PDP RESTART THE LINE AT THE SAME TIME.
909      ; THE PDP WILL RETURN A BAD STATUS TO THE APPLICATIONS TASK. THE TASK WILL
910      ; RE-INITIALIZE THE CHANNEL AND SEND ANOTHER RESTART REQUEST TO THE UNIVAC.
911      ; IN THE MEAN TIME THE UNIVAC HAS DETECTED THE FIRST RESTART REQUEST SENT
912      ; BY THE PDP. SO IT SENDS A RESTART ACK. THE PDP ACCEPTS THIS AS AN ACK
913      ; TO ITS SECOND RESTART REQUEST. THEN THE UNIVAC DETECTS THE SECOND RESTART
914      ; REQUEST AND SENDS A SECOND RESTART ACK. THIS ACK IS IGNORED SINCE THE
915      ; PDP IS NO LONGER IN A RESTART MODE.
916      ;
917      5$: CMP      #RACK,R0      ; IS THIS A RESTART ACK?
918      BEQ      5$      ; YES
919      RESTOR   R0,R1
920      MOV      U,SCB(R5),R4      ; NO, R4->SCB
921      TSTB     S,STS(R4)      ; IS THE UNIT BUSY?
922      BEQ      7$      ; NO, WAIT UNTIL QIO ISSUED
923      MOV      S,PKT(R4),R1
924      CNPB     I,FCH+1(R1),#IO.RFC/256,      ; FUNCTION?
925      BNE      11$      ; BRANCH IF NO
926      CALL     SETAPR      ; MAP INTO TASKS FUNCTION BUFFER
927      MOV      R,EF0(R3),(R0)+      ; MOVE 36 BIT BUFFER
928      MOV      R,EF1(R3),(R0)+
929      MOV      R,EF2(R3),(R0)+
930      MOV      (SP)+,K15AR6      ; RESTORE APR 6
931      BIT      #DPBF,R:CSR(R3)      ; IF FUNCTION OVER WROTE DMA
932      BEQ      10$      ; NO
933      MOV      #IE,CNR,R0      ; YES, REPORT ERROR
934      CALL     IODONE
935      MOV      #XMT,R0      ; INDUCE ERROR IN XMIT SIDE
936      CALL     SETERR
937      BR       31$
938      ;
939      ; SET-UP RECEIVE PACKING MODE BITS (0,1 AND 2) IN MCR
940      ;
941      10$: MOV      R1,-(SP)      ; SAVE R1
942      MOV      R,EF0(R3),R0      ; R0 = BITS 32-47
943      MOV      R,EF1(R3),R1      ; R1 = BITS 16-31
944      ASHC     #2,R0      ; R0 = TRANSACTION TYPE
945      ; -- BITS 30-35
946      BIC      #177700,R0      ; JUST TO MAKE SURE
947      CLR      NB,UHL      ; SHOW NO UHL
948      CMP      #5,R0      ; QUERY?
949      BNE      4$      ; BRANCH IF NO
950      MOV      #1,NB,UHL      ; IF QUERY, SET UHL FLAG
951      MOV      PACK(R0),R0      ; R0 = PACKING MODE
952      BIC      #177400,R0
953      ;
954      4$: BIC      #7,MCR(R3)      ; CLEAR PREVIOUS PACKING MODE BITS
955      BIS      R0,MCR(R3)      ; SET PACKING MODE BITS
956      MOV      (SP)+,R1      ; RESTORE R1
957      ;
958      MOV      #IS,SUC,R0      ; RETURN GOOD STATUS
959      CALL     IODONE
960      ;
961      ; GET THE INPUT BLOCK COUNT
962      ;
963      MOV      R,EF1(R3),R0      ; GET THE WORD THAT CONTAINS THE FIELD
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

ACC-HANDLE MACRO-M1110 27-MAR-80 13:32 PAGE 16-3
RCVINT-(\$-NP) -- ENTRY POINT

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

965 002434 042700 140000      BIC  #140000,R0      ;MASK OFF GARBAGE
966 002440 072027 177776      ASH  #-2,R0        ;RIGHT JUSTIFY
967 002444 010065 000000G     MOV  R0,U,CW3(R5)   ;SAVE IT IN THE BLOCK COUNT
968 002450 005767 175332      TST  NB,UHL         ;UHL FLAG SET?
969 002454 001433              BEQ   30$              ;BRANCH IF NO
970 002456 010067 175324      MOV  R0,NB,UHL        ;NB,UHL = TOTAL NO. OF BLOCKS
971 002462 016300 000020      MOV  R,EF2(R3),R0    ;R0 = NO. OF BLOCKS OOF QUERY TEXT
972 002466 042700 177400      BIC  #177400,R0      ;JUST TO MAKE SURE
973 002472 160067 175310      SUB  R0,NB,UHL        ;NO. OF UHL BLOCKS
974 002476 000422              BR   30$
975                               ;
976                               ; ENABLE INTERRUPTS
977                               ;
978 002500      7$:
979 002500 052763 000100 000000  BIS  #INT,R,CSR(R3)
980 002506 052763 000100 000010  BIS  #INT,T,CSR(R3)
981 002514 000427              BR   99$
982                               ;
983                               ; PROCESS A RESTART ACKNOWLEDGEMENT
984                               ;
985 002516      6$:
986 002522 005767 175336      RESTOR R0,R1
987 002526 001406              TST  RESTRT
988 002530 012700 000000G     BEQ   30$              ;IS THE RESTART FLAG SET?
989 002534              MOV  #IS,SUC,R0      ;NO, IGNORE THE ACK
990 002540 005067 175320      CALL  IDONE      ;YES, RETURN GOOD STATUS
991              CLR  RESTRT
992              ;
993 002544      30$:
994 002544 052763 000100 000010  BIS  #INT,T,CSR(R3)
995 002552 052763 000100 000000  BIS  #INT,R,CSR(R3)
996 002560      31$:
997 002560 042763 000200 000034  BIC  #FRFUC,MCR(R3)
998 002566 042763 010000 000000  BIC  #DPBF,R,CSR(R3)
999              ;
1000              ; RETURN
1001              ;
1002 002574      39$:
1003 002574 000167 175316      JMP  ACINI
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

ACC-HANDLER MACRO-M1110 27-MAR-80 13:32 PAGE 17
DMA-- SUBROUTINE.

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
1005          .SBTTL DMA-- SUBROUTINE.
1006          ;+
1007          ;
1008          ; *k--DMA SUBROUTINE
1009          ;
1010          ; THE PURPOSE OF THE DMA ROUTINE IS TO PROCESS DMA RECEIVE INTERRUPTS.
1011          ;
1012          ; INPUTS:
1013          ; R3->FIRST ACC. HARDWARE REGISTER.
1014          ; R4->FIRST ACC. HARDWARE REGISTER.
1015          ; R5->UCB.
1016          ;
1017          ; REGISTER USAGE:
1018          ; R0 CONTAINS ERROR CODES.
1019          ;
1020          ; OUTPUTS:
1021          ; NONE.
1022          ;
1023          ;-
1024          ;
1025          DMA:
1026          MOV. U,SCB(R5),R4
1027          TSTB. S,STS(R4)
1028          BEQ. 99$
1029          MOV. S,PKT(R4),R1
1030          CNFB. I,FCR+1(R1),#IO.RLB/256.
1031          BNE. 99$
1032          BIC. #DMADON,R.CSR(R3)
1033          BOFF. 99$
1034          BIT. #WCEZ,R.CSR(R3)
1035          BOFF. 99$
1036          MOV. #IS,SUC,R0
1037          CALL. IODONE.
1038          BIC. #<DMADON+WCEZ>,R.CSR(R3)
1039          DEC. U,CW3(R5)
1040          BEQ. 99$
1041          CMP. U,CW3(R5),NB,UHL.
1042          BNE. 99$
1043          BIC. #7,MCR(R2)
1044          BIS. #4,MCR(R3)
1045          BIS. #INT,T.CSR(R3)
1046          BIS. #INT,R.CSR(R3)
1047          RETURN.
1048          ; IF THE UNIT IS NOT ACTIVE,
1049          ; IGNORE SPURIOUS INTERRUPT.
1050          ; RLB?
1051          ; IGNORE IF NOT RLB.
1052          ; DMA DONE INDICATIONL?
1053          ; NO. GO EXIT.
1054          ; DMA WORD COUNT = 0?
1055          ; NO. GO EXIT.
1056          ; YES. RETURN GOOD I/O STATUS.
1057          ; RESET DMA DONE BITS
1058          ; DEC INPUT BLOCK COUNT.
1059          ; IF NO MORE BLOCKS.
1060          ; SWITCH FROM QUERY TO UHL BLOCKS?
1061          ; NO.
1062          ; YES. CHANGE PACKING MODE.
1063          ; ENABLE INTERRUPTS.
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

ACC-HANDLE MACRO-M1116 27-MAR-88 13:32 PAGE 18
POWER-FAIL ENTRY-POINT:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
1050 .SBTTL POWER-FAIL --- ENTRY-POINT.
1051 ;+
1052 ;
1053 ; THE PURPOSE OF THIS ENTRY POINT IS TO RESET THE INTERFACE AND LOAD
1054 ; CNTBL WITH VALID UCB ADDRESSES.
1055 ;
1056 ; INPUTS:
1057 ; R5->UCB.
1058 ; R4->SCB.
1059 ; R3=CONTROLLER INDEX.
1060 ;
1061 ; REGISTER USAGE:
1062 ; R0->FIRST ACC-HARDWARE REGISTER.
1063 ;
1064 ; OUTPUTS:
1065 ; NONE.
1066 ;
1067 ;-
1068 ;
1069 002734 POWER:
1070 002734 016400 000000G MOV S:CSR(P4),R0 ;R0->FIRST ACC-HARDWARE REGISTER.
1071 002740 052760 000004 000010 BIS #RESET,T:CSR(R0) ;RESET THE INTERFACE
1072 002746 005065 000000G CLR U,CW3(R5) ;RESET THE DMA BLOCK COUNT.
1073 002752 010563 000002* MOV R5,CNTBL(R3) ;PUT UCB ADDR INTO CNTBL.
1074 002756 RETURN
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

ACC HANDLER: MACRO:M1110 27-MAR-88 13:32: PAGE 19
TIME OUT:-- ENTRY POINT.

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
1076                                     .SBTTL--TIME OUT-- ENTRY POINT.
1077                                     ;+
1078                                     ;
1079                                     ; THE TIME OUT ENTRY POINT IS CALLED AFTER AN EXCESSIVE AMOUNT OF TIME HAS
1080                                     ; EXPIRED IN A DMA OR SEND STATUS OPERATION; ONLY RECEIVE DMA OPERATIONS
1081                                     ; ARE TIMED; NOTHING IS DONE FOR THE RECEPTION OF FUNCTION WORDS BECAUSE
1082                                     ; ONE CANNOT PREDICT WHEN TRANSACTIONS ARE TO BE INITIATED BY THE HOST.
1083                                     ;
1084                                     ; INPUT:
1085                                     ;   R0 = I/O STATUS CODE IE DNP.
1086                                     ;   R2=ADDRESS OF CSR.
1087                                     ;   R3=CONTROLLER INDEX.
1088                                     ;   R4=ADDRESS OF THE SCB.
1089                                     ;   R5=ADDRESS OF THE UCB.
1090                                     ;
1091                                     ; REGISTER USAGE:
1092                                     ;   R0 CONTAINS ERROR CODES.
1093                                     ;
1094                                     ; OUTPUTS:
1095                                     ;   NONE.
1096                                     ;
1097                                     ;-
1098                                     ;
1099                                     ;
1100 002760      TIMEOUT:
1101 002760      005767 175104      TST.    LOOPB.      ; IF IN LOOP BACK MODE DO NOT...
1102 002764      001006          BNE.    3$          ; ...CLEAR THE INTERRUPTS.
1103 002766      042762 000100 000010      BIC.    #INT.T.CSR(R2) ; DISABLE TIME OUTS.
1104 002774      042762 000100 000000      BIC.    #INT.R.CSR(R2)
1105 003002      005065 000000G.      3$:      CLR.    U:CU3(P5)      ; RESET THE DMA BLOCK COUNT.
1106 003006      105765 000000G.      TSTB.   U:UNIT(R5)      ; WHICH UNIT?
1107 003012      001405          BEQ.    1$          ; RECEIVE.
1108 003014      012700 000000      MOV.    #RCV,R0      ; TELL RCV THAT ERROR WAS FOUND.
1109 003020          SETERR. 2$
1110 003024      000404          BR.      2$
1111 003026          1$:      MOV.    #XMT,R0      ; TELL XMIT THAT ERROR WAS FOUND.
1112 003032          CALL.   SETERR.
1113 003036          2$:      MOV.    #IE.TMO,R0      ; RETURN ERROR CODE TO TASK.
1114 003042          CALL.   IODONE.
1115 003046      000167 175044      JMP.    ACINI.      ; GO GET ANOTHER PACKET.
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

1120 .SBTTL CANCEL--- ENTRY POINT.
1121 ;+
1122 ;
1123 ; THE PURPOSE OF THE CANCEL ENTRY POINT IS TO KILL ON GOING I/O'S.
1124 ; THE CURRENT I/O IS KILLED AND AN ERROR INTERRUPT IS SET TO CAUSE
1125 ; THE OTHER SIDE OF THE HANDLER TO ABORT ANY ACTIVE I/O IT MAY HAVE.
1126 ;
1127 ; INPUTS:
1128 ; R5->UCB.
1129 ; R4->SCB.
1130 ; R3-CONTROLLER INDEX.
1131 ; R1->TCB OF CURRENT TASK.
1132 ; R0->ACTIVE I/O PACKET.
1133 ;
1134 ; REGISTER USAGE:
1135 ; R3->FIRST ACC-HARDWARE REGISTER.
1136 ;
1137 ; OUTPUTS:
1138 ; NONE.
1139 ;
1140 ;-
1141 ;
1142-003052. CANCEL:
1143 003052. 016403 000000G. MOV. S.CSR(R4).R3 ;R3->FIRST ACC-HARDWARE REGISTER.
1144 003056 105064 000000G. CLPB. S.CTM(R4) ;CANCEL ANY TIME OUT.
1145 003062. 042763 000100 000010 BIC. *INT.T.CSR(R3) ;DISABLE ACC INTERRUPTS.
1146 003070 042763 000100 000000 BIC. *INT.R.CSR(R3)
1147 003076 012700 000000G. MOV. *IE.ABO.R0 ;RETURN ABORT STATUS TO TASK.
1148 003102. CALL. IODONE.
1149 003106 005065 000000G. CLR. U.CW3(R5) ;RESET THE DMA BLOCK COUNT.
1150 003112. 105765 000000G. TSTB. U.UNIT(R5) ;IS THE A-RCV OR XMIT UNIT.
1151 003116 001005 BNE. 1$ ;A-XMIT UNIT.
1152-003120 012700 000002 MOV. *XMT.R0 ;TELL XMIT THAT AN ERROR WAS FOUND.
1153 003124 CALL. SETERR.
1154 003130 000404 BR. 99$
1155 003132. 1$:
1156 003132. 012700 000000 MOV. *RCV.R0 ;TELL RCV THAT AN ERROR WAS FOUND.
1157 003136 CALL. SETERR.
1158 003142. 99$:
1159 003142. 000167 174750 JMP. ACINI. ;GO SEE IF THERE ARE ANY MORE PACKETS.

```

ACC-HANDLER. MACRO-M1110 27-MAR-80 13:32 PAGE 21
CKERR--- ROUTINE.

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
1161 .SBTTL--CKERR--- ROUTINE.
1162 ;+
1163 ;
1164 ; THE PURPOSE OF THE CKERR ROUTINE IS TO CHECK ERROR BITS IN A GIVEN
1165 ; CSR.
1166 ;
1167 ; INPUTS:
1168 ; R5->UCB.
1169 ; R2->CSR.
1170 ;
1171 ; REGISTER USAGE:
1172 ; R0 PASSES ERROR CODES TO "IODONE"
1173 ;
1174 ; OUTPUTS:
1175 ; NONE.
1176 ;
1177 ;-
1178 ;
1179 CKERR:
1180 003146 032712 004000 BIT #PARITY,(R2) ;IS THERE A PARITY ERROR?
1181 003152 001410 BEQ 1$ ;NO.
1182 003154 012700 MOV #IE,VER,R0 ;YES, RETURN ERROR STATUS.
1183 003160 CALL IODONE.
1184 003164 005065 CLR U: CW3(R5) ;CLEAR THE DMA BLOCK COUNT.
1185 003170 000261 SEC ;SET ERROR RETURN.
1186 003172 000426 BR 99$
1187 003174
1188 003174 032712 060000 1$: BIT #<NEMR+UNVCR>,(R2) ;COMPOSIT ERROR BIT SET?
1189 003200 001002 BNE 2$ ;YES.
1190 003202 000241 CLC ;NO, GIVE NO ERROR RETURN.
1191 003204 000421 BR 99$
1192 003206
1193 003206 032712 040000 2$: BIT #NEMR,(R2) ;MEMORY ADDRESSING ERROR?
1194 003212 001405 BEQ 3$ ;NO.
1195 003214 012700 MOV #IE,SPC,R0 ;YES, RETURN ERROR.
1196 003220 CALL IODONE.
1197 003224 000404 BR 50$
1198 003226
1199 003226 012700 000000 3$: MOV #IE,CNR,R0
1200 003232 CALL IODONE.
1201 003236
1202 003236 042712 060000 50$: BIC #<NEMR+UNVCR>,(R2) ;CLEAR THE ERROR BITS.
1203 003242 005065 CLR U: CW3(R5) ;RESET THE DMA BLOCK COUNT.
1204 003246 000261 SEC ;SET ERROR RETURN.
1205 003250 BR 99$
1206 003250 RETURN.
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

1208.          .SBTTL SETAPR---ROUTINE.
1209.          ;+
1210.          ;
1211.          ; **--SETAPR-ROUTINE
1212.          ;
1213.          ; THE PURPOSE OF THE SETAPR-ROUTINE IS TO CONVERT A PHYSICAL ADDRESS
1214.          ; TO A VIRTUAL ADDRESS.
1215.          ;
1216.          ; INPUTS:
1217.          ;   R5->UCB.
1218.          ;
1219.          ; REGISTER USAGE:
1220.          ;   R0 IS USED FOR WORKING STORAGE AND IS DESTROYED.
1221.          ;   R1 IS USED FOR WORKING STORAGE AND IS RESTORED.
1222.          ;
1223.          ; OUTPUTS:
1224.          ;   R0 CONTAINS THE VIRTUAL ADDRESS OF THE USER BUFFER.
1225.          ;   APR-6 IS REMAPPED TO THE TASK'S AREA.
1226.          ;   (SP) CONTAINS THE OLD APR-6 VALUE.
1227.          ;
1228.          ;-
1229.          ;
1230.          SETAPR:
1231.          MOV.    (SP),-(SP)          ;MAKE ROOM FOR THE OLD APR-6
1232.          MOV.    R1,-(SP)           ;SAVE R1
1233.          MOV.    U,BUF(R5),R0      ;MOV UPPER 2 BITS OF 18 BIT ADDR.
1234.          BIC.    #177717,R0        ;GET RID OF GARBAGE.
1235.          ASH.    #-4,R0             ;RIGHT JUSTIFY BITS 19 AND 17
1236.          MOV.    U,BUF+2(R5),R1     ;GET LOWER ORDER 16 BITS OF ADDR.
1237.          ASHC.   #-6,R0            ;CONVERT TO 32 WORD APR ADDRESS.
1238.          MOV.    KISAR6,4(SP)       ;SAVE THE OLD APR-6
1239.          MOV.    R1,KISAR6          ;PUT THE NEW VALUE INTO APR-6
1240.          MOV.    U,BUF+2(R5),R0     ;GET LOWER ORDER 16 BITS.
1241.          BIC.    #177700,R0        ;MASK OFF UPPER 10 BITS.
1242.          BIS.    #140000,R0        ;SETUP FOR APR-6
1243.          MOV.    (SP)+,R1          ;RESTORE R1
1244.          RETURN.
  
```


ACC-HANDLER: MACRO.M1110 27-MAR-80 13:32 PAGE 23
 IODONE--- ROUTINE.

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

1246                                     .SBTTL- IODONE--- ROUTINE.
1247                                     ;+
1248                                     ;
1249                                     ; **--IODONE.ROUTINE
1250                                     ;
1251                                     ; THE PURPOSE OF THIS ROUTINE IS TO SEND AN I/O DONE STATUS BACK TO THE
1252                                     ; APPLICATION TASK VIA THE EXECUTIVE. THIS IS DONE ONLY IF THERE IS AN
1253                                     ; ACTIVE I/O FOR THE DESIRED UNIT.
1254                                     ;
1255                                     ; INPUTS:
1256                                     ;   R5->UCB.
1257                                     ;   R0=ERROR CODE.
1258                                     ;
1259                                     ; REGISTER USAGE:
1260                                     ;   NONE.
1261                                     ;
1262                                     ; OUTPUTS:
1263                                     ;   NONE.
1264                                     ;
1265                                     ;-
1266                                     ;
1267 003334 IODONE:
1268 003334 010346      MOV.   R3, -(SP)          ; SAVE R3 - R5
1269 003336 010446      MOV.   R4, -(SP)
1270 003340 010546      MOV.   R5, -(SP)
1271 003342 005767 174520  TST.   RSTADD.          ; IS THE RESTART ADDRESS ZERO?
1272 003346 001407      BEQ.   1$                ; YES
1273 003350 016705 174512  MOV.   RSTADD, R5      ; R5->PESTART, UCB
1274 003354          CALL.   $IODON.              ; SEND STATUS
1275 003360 005067 174502  CLR.   RSTADD.          ; CLEAR THE RESTART ADDRESS
1276 003364 000407      BR.     99$
1277 003366          1$:
1278 003366 016504 000000G  MOV.   U:SCB(R5), R4
1279 003372 105764 000000G  TSTB.  S:STS(R4)
1280 003376 001402      BEQ.   99$                ; IS THE UNIT ACTIVE?
1281 003400          CALL.   $IODON.              ; NO
1282 003404          99$:
1283 003404 012605      MOV.   (SP)+, R5          ; YES, RETURN STATUS
1284 003406 012604      MOV.   (SP)+, R4
1285 003410 012603      MOV.   (SP)+, R3
1286 003412      RETURN.

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

1288.
1289.
1290.
1291.
1292.
1293.
1294.
1295.
1296.
1297.
1298.
1299.
1300.
1301.
1302.
1303.
1304.
1305.
1306.
1307.
1308.
1309 003414
1310 003414 010546
1311 003416 010446
1312 003420 005267 174440
1313 003424 016005 000002
1314 003430 016504 000000G
1315 003434 105764 000000G
1316 003440 001405
1317 003442 112764 000001 000000G
1318
1319 003450 005065 000000G
1320 003454
1321 003454 012604
1322 003456 012605
1323 003460
1324
1325 000001

          .SBTTL SETERR---ROUTINE.
          ;+
          ;
          ; **--SETERR-ROUTINE
          ;
          ; THE PURPOSE OF THIS ROUTINE IS TO SET A TIME OUT IN THE OTHER UNITS SCB.
          ; THIS IS DONE IF AN ERROR IS ENCOUNTERED IN THE CURRENT UNIT. THE ERROR
          ; TIME OUT IS SET ONLY IF THE OTHER UNIT HAS AN ACTIVE I/O.
          ;
          ; INPUTS:
          ;   R0 CONTAINS THE OFFSET INTO "CNTBL" FOR THE CORRECT UCB.
          ;
          ; REGISTER USAGE:
          ;   R4 AND R5 ARE SAVE AND RESTORED. R4->SCB, AND R5->UCB.
          ;   OF THE OTHER UNIT.
          ;
          ; OUTPUTS:
          ;   NONE.
          ;
          ;
          ;
          SETERR:
          MOV.  R5, -(SP)          ;SAVE R5 AND R4
          MOV.  R4, -(SP)
          INC.  RESTRT             ;SET THE RESTART FLAG.
          MOV.  CNTBL(R0), R5      ;R5->OTHER UNITS UCB
          MOV.  U.SCB(R5), R4      ;R4->OTHER UNITS SCB
          TSTB. S.STS(R4)          ;IS THE OTHER UNIT BUSY?
          BEQ.  99$               ;NO, DO NOTHING.
          MOVB. #1, S.CTM(R4)      ;SET TIME OUT TO OCCUR WITHIN
          ;ONE SECOND.
          CLR.  U.CW3(R5)          ;RESET THE DMA BLOCK COUNT.
          99$:
          MOV.  (SP)+, R4          ;RESTORE R4 AND R5
          MOV.  (SP)+, R5
          RETURN.
          ;
          ;
          .END.

```

ACC-HANDLER
SYMBOL TABLE

MACRO-M116 27-M

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

ACINI = 000116R	D\$ILLI = 000004	IO.EOF = 003000	IO.RWD = 002400	L\$PPII = 000001
A\$CHK = 000000	D\$SHF = 000000	IO.FDX = 003020	IO.RWU = 002540	MC = 000036
A\$CPS = 000000	D\$YNC = 000000	IO.FLN = 012400	IO.RIC = 002400	MCR = 000034
A\$C11 = 000002.G	D\$YNM = 000000	IO.GLC = 016430	IO.SAO = 004000	M\$CRB = 000124
A\$NSI = 000000	EA16 = 000020	IO.GLI = 016420	IO.SCS = 013000	M\$CRX = 000000
A\$PRI = 000000	EA17 = 000040	IO.GNI = 016410	IO.SDI = 013000	M\$FCS = 000000
A\$TRP = 000000	E\$XPR = 000000	IO.GRC = 016450	IO.SDO = 012400	M\$MGE = 000000
BBPDP = 000004	FD.FID 000000	003 IO.GRI = 016440	IO.SEC = 002520	M\$MUP = 000000
BBUNVC = 000010	FD.FNB 000006	003 IO.GRN = 016460	IO.SLO = 005400	M\$OVR = 000000
BITVAL = 000000	FD.FVR 000004	003 IO.GTS = 002400	IO.SMO = 002560	N = 000012
BIT0 = 000001	FD.LEN 000010	003 IO.HDY = 003010	IO.SPB = 002420	NB.UHL = 000006R
BIT1 = 000002	FRFUC = 000200	IO.HIS = 015000	IO.SPF = 002440	NEMR = 040000
BIT10 = 002000	FUNCT = 001130R	IO.HMG = 003000	IO.SPW = 016510	N\$LDV = 000001
BIT11 = 004000	F\$LVL = 000001	IO.INI = 014400	IO.SSD = 004400	N\$MOV = 000041
BIT12 = 010000	G\$TPP = 000000	IO.INL = 002400	IO.STA = 015400	N.BFAC = 000004
BIT13 = 020000	G\$TSS = 000000	IO.ITI = 017000	IO.STC = 002500	N.BHGH = 000006
BIT14 = 040000	G\$TTK = 000000	IO.LDI = 007000	IO.STP = 016400	N.BTCH = 000004
BIT15 = 100000	G\$WRD = 000000	IO.LED = 012000	IO.SYN = 003040	N.BUFB = 004000
BIT2 = 000004	H\$RTZ = 000074	IO.LEI = 007410	IO.TFC = 003000	N.BUFW = 002000
BIT3 = 000010	IE.ABO = ***** GX	IO.LKE = 012000	IO.TRM = 002410	N.FOS = 000764
BIT4 = 000020	IE.BAD = ***** GX	IO.LOD = 014000	IO.UDI = 011410	N.GURY = 000031
BIT5 = 000040	IE.CNR = ***** GX	IO.LSI = 011000	IO.UET = 011450	N.SUNT = 000002
BIT6 = 000100	IE.DNR = ***** GX	IO.LTI = 007400	IO.UER = 011440	PACK 000072R
BIT7 = 000200	IE.IFC = ***** GX	IO.LTY = 010000	IO.USI = 011460	PARITY = 004000
BIT8 = 000400	IE.ILU = ***** GX	IO.MAO = 003410	IO.UTI = 011420	POWER 002744R
BIT9 = 001000	IE.LNL = ***** GX	IO.MCS = 013400	IO.UTY = 011430	P\$GMX = 000000
BYTE = 000002	IE.SPC = ***** GX	IO.MDA = 016000	IO.WAL = 000410	P\$GLAS = 000000
BYTE0 = 000000	IE.TMO = ***** GX	IO.MDI = 014400	IO.WBI = 000500	P\$P45 = 000000
BYTE1 = 000001	IE.VER = ***** GX	IO.MDO = 015400	IO.WDD = 000444	P\$RFL = 000000
BYTE2 = 000002	INT = 000100	IO.MLO = 006000	IO.WLB = ***** GX	P\$RRTY = 000000
BYTE3 = 000003	IODONE 003334R	IO.MOD = 003000	IO.WLC = 000420	P\$SRF = 000000
BYTE4 = 000004	IO.ADS = 014000	IO.MSO = 005000	IO.WLS = 000410	P\$SWRD = 000000
BYTE5 = 000005	IO.ATA = 001410	IO.NLB = 016530	IO.WLT = 000410	Q\$OPT = 000007
BYTE6 = 000006	IO.CAS = 015420	IO.NLK = 011400	IO.WLV = 000500	RACK = 000070
BYTE7 = 000007	IO.CBO = 015510	IO.OHL = 017400	IO.WMS = 000420	RBF = 000400
BYTE8 = 000010	IO.CCI = 014000	IO.RAD = 010400	IO.WNS = 000420	RCV = 000000
BYTE9 = 000011	IO.CCO = 000440	IO.RAL = 001010	IO.WPB = 000440	RCVINT 001710R
BYTVAL = 000012	IO.CIN = 016500	IO.RBC = 003000	IO.XMT = 014400	RECEVE 000740R
CANCEL 003052R	IO.CLK = 015000	IO.RCI = 015000	IO.XNA = 014410	RESET = 000004
CKERR 003146R	IO.CNT = 017000	IO.PCV = 015000	IS.SUC = ***** GX	RESRT 000064R
CNTBL 000002R	IO.CON = 015400	IO.RDB = 001200	ITSOK 001760R	RETTE 000252R
COMP = 100000	IO.CPR = 015410	IO.RDD = 010010	I\$RRAR = 000000	RPM0 = 000001
C\$CDA = 000002	IO.CPW = 016520	IO.REL = 013400	I\$SRDN = 000000	RPM1 = 000002
C\$CKP = 000000	IO.CRC = 001040	IO.RFC = 003400	I.FCN = ***** GX	RPM2 = 000004
C\$CSR = 177404	IO.CRJ = 015440	IO.RHD = 001010	I.PRM = ***** GX	R\$TRTC 000052R
C\$INT = 000000	IO.CSI = 013000	IO.RLB = ***** GX	KISAR6 = ***** GX	R\$TRT 000254R
C\$ORE = 002000	IO.CSM = 016470	IO.RLV = 001100	K\$CNT = 177546	R\$TRTC = 000052
C\$RSH = 177564	IO.CTI = 015400	IO.RNT = 010020	K\$CSR = 177546	R\$BDR = 000000
C\$RUN = 000000	IO.CTL = 016400	IO.RNC = 001040	K\$TEN = 000115	R\$EXV = 000000
C\$TTY = 177564	IO.CTR = 015610	IO.RNE = 001020	K\$LDC = 000001	R\$K11 = 000001
DA = 000100	IO.CTY = 003400	IO.RNS = 001020	K\$TPS = 000074	R\$P11 = 000001
DBSLEN = 000116	IO.DCI = 014400	IO.RPB = 001040	LD\$AC = 000001	R\$SND = 000000
DMA = 002600R	IO.DIS = 016000	IO.PPR = 004400	LD\$XM = 000000	R\$11H = 000000
DMAON = 000200	IO.DLB = 016540	IO.RST = 001001	LOOPB = 000070R	R\$CSR 000000
DMAO = 000001	IO.DSI = 013400	IO.RTC = 003400	L\$ASG = 000000	R\$DBM 000002
DPBF = 010000	IO.DTI = 016000	IO.RTI = 016400	L\$DRV = 000000	R\$EFO 000024
D\$ISK = 000000	IO.DTY = 006400	IO.RTH = 001200	L\$PTO = 000144	R\$EF1 000022

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

ACC:HANDLE MACRO:M1110 27-MAR-80 13:32 PAGE 24-2

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
R.EF2: 000020 004 SR:NIP 000022 002:TPM1 = 001000 T$$30P= 000000 WORD4 = 000010
R.MA: 000004 004 SR:SDB 000032 002:TPM2 = 002000 T.CSR: 000010 004 WORD5 = 000012
R.WC: 000006 004 SR:SRC 000002 002:T$$ACR= 000000 T.DB: 000012 004 WORD6 = 000014
SETAPR: 003252R SR:SUN 000000 002:T$$BTW= 000000 T.EF0 000032 004 WORD7 = 000016
SETERR: 003414R SR:TWS 000056 002:T$$BUF= 000000 T.EF1 000030 004 WORD8 = 000020
SR:ARE: 000114 002:SR:WSL 000052 002:T$$CCA= 000000 T.EF2: 000026 004 WORD9 = 000022
SR:ARS: 000106 002:SR:YR 000004 002:T$$CCO= 000000 T.MA: 000014 004 WORDVAL= 000024
SR:DAY: 000010 002:SR:1IN 000024 002:T$$CTR= 000000 T.WC: 000016 004 XMIT 000464R
SR:DLT: 000014 002:SR:1IP 000016 002:T$$GMC= 000000 UNVCR= 020000 XMT = 000002
SR:ECB: 000047 002:SSTU = 100000 T$$GTS= 000000 U.BUF = ***** GX XMTINT: 001472R
SR:ECH: 000046 002:S$$YSZ= 007600 T$$KMC= 000000 U.CW3 = ***** GX X$$DBT= 000000
SR:ECL: 000050 002:S.CSR= ***** GX T$$LWC= 000000 U.SCB = ***** GX X$$M11= 000002
SR:FIB: 000012 002:S.CTM= ***** GX T$$M11= 000001 T$$RNE= 000000 U.UNIT= ***** GX $ACINP: 001710RG
SR:GRE: 000100 002:S.FRK = ***** GX T$$RPR= 000000 VEC: 000010R $ACOUT: 001472RG
SR:GRS: 000072 002:S.ITM = ***** GX T$$RUB= 000000 V$$RSN= 000031 $ACTBL: 000054RG
SR:LEN: 000122 002:S.PKT = ***** GX T$$SYN= 000000 WCEZ = 001000 $FRKHD= ***** GX
SR:LIN: 000066 002:S.ITS = ***** GX T$$TRW= 000000 WORD0 = 000000 $GTPKT= ***** GX
SR:LIP: 000062 002:TBE = 000400 T$$VBF= 000000 WORD1 = 000002 $INTXT= ***** GX
SR:MON: 000006 002:TEMP 000000R T$$VBF= 000000 WORD2 = 000004 $IODON= ***** GX
SR:NDC: 000042 002:TIMOUT 002760R WORD3 = 000006 ...GBL= 000000
SR:NDS: 000036 002:TPM0 = 000400
SR:NIN: 000030 002
```

.ABS. 000000 000
003462 001
SRCOFF: 000122 002
FDSCOF: 000010 003
ACCREG: 000040 004
ERRORS DETECTED: 0

VIRTUAL MEMORY USED: 10656 WORDS (42 PAGES)
DYNAMIC MEMORY: 12308 WORDS (47 PAGES)
ELAPSED TIME: 00:01:01
ACDRV:ACDRV/-SP=C1,1JEXEMC/HIL,C200,200JRSXMC/PA:1,C20,1JP,ACDRV

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
1 .TITLE ACC-HANDLER DATA-BASE
2 .MCALL DEVDF$,HJDDF$
3 000000 DEVDF$
4 000000 HJDDF$
5 000002 AS$C11 2 ;NO-OF-UNITS
6 ;
7 ; START-OF ACC-DATA-BASE
8 ;
9 000000 $ACDAT::
10 ;
11 ; DEVICE-CONTROL-BLOCK (DCB)
12 ;
13 000000 ACDCB:
14 000000 000000 .WORD 0 ;D.LNK, LINK-TO-NEXT-DCB
15 000002 000042 .WORD .AC0 ;D.UCB, LINK-TO-FIRST-UCB
16 000004 101 .ASCII /AC/ ;D.NAM, HANDLER-NAME
17 000006 000 103 .BYTE 0,1 ;D.UNIT, LOW-AND-HIGH-UNIT-NUMBERS
18 000010 000036 .WORD ACEND-ACSTRT ;D.UCBL, UCB-LENGTH
19 000012 000000 .WORD 0 ;D.DSP, ADDRESS-OF-HANDLER-DISPATCH-TABLE
20 000014 0000347 .WORD 347 ;D.MSK, LEGAL-FUNCTIONS:
21 ;
22 ; 1) IO.KIL
23 ; 2) IO.MLB
24 ; 3) IO.RLB
25 ; 4) IO.INL
26 ; 5) IO.TFC
27 ; 6) IO.RFC
27 000016 000040 .WORD 40 ;D.MSK, CONTROL-FUNCTIONS
28 000020 000000 .WORD 0 ;D.MSG, NO-OP'D-MASK
29 000022 000000 .WORD 0 ;D.MSK, ACP-MASK
30 000024 000000 000000 000000 .WORD 0,0,0,0 ;D.MSK, FOR-THE-ABOVE-WORDS-ONLY, BITS-16-32
31 000034 000000 .WORD 0 ;D.PCB, PARTITION-CONTROL-BLOCK
32 ;
33 ; UNIT-CONTROL-BLOCK (UCB) ----- UNIT-0
34 ;
35 000036 ACSTRT:
36 000036 000000 .WORD 0 ;U.LUIC
37 000040 000000 .WORD 0 ;U.OWN
38 000042 .AC0::
39 000042 000000 .WORD ACDCB ;U.DCB, ADDRESS-OF-DCB
40 000044 000042 .WORD -2 ;U.RED, REDIRECT-POINTER
41 000046 321 .BYTE UC.PWF+UC.NPR+UC.ALG+1 ;U.CTL
42 000047 000 .BYTE 0 ;U.STS, UNIT-STATUS
43 000050 000 .BYTE 0 ;U.UNIT, UNIT-NUMBER
44 000051 000 .BYTE 0 ;U.ST2, UNIT-STATUS
45 000052 000000 .WORD 0 ;U.CW1
46 000054 000000 .WORD 0 ;U.CW2
47 000056 000000 .WORD 0 ;U.CW3, BLOCK-COUNT-FOR-MULTI-BLOCK-DATA-IO
48 000060 000000 .WORD 0 ;U.CW4
49 000062 000132 .WORD ACSCB0 ;U.SCB, POINTER-TO-UNIT'S-SCB
50 000064 000000 .WORD 0 ;U.ATT
51 000066 000000 .WORD 0 ;U.BUF
52 000070 000000 .WORD 0 ;U.CNT
53 000072 000000 .WORD 0 ;
54 000074 ACEND:
55 ;
56 ; UNIT-CONTROL-BLOCK (UCB) ----- UNIT-1
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

57
58 000074 000000      .WORD  0      :U.LUIC-
59 000076 000000      .WORD  0      :U.OWN
60 000100
.AC1::
61 000100 000000      .WORD  ACDCB  :U.DCB, ADDRESS OF DCB.
62 000102 000100      .WORD  -2.    :U.RED, REDIRECT POINTER.
63 000104 321        .BYTE  UC,PWF+UC,NPR+UC,ALG+1 :U.CTL,
64 000105 000        .BYTE  0      :U.STS, UNIT STATUS.
65 000106 001        .BYTE  1      :U.UNIT, UNIT NUMBER.
66 000107 000        .BYTE  0      :U.ST2, UNIT STATUS.
67 000110 000000      .WORD  0      :U.CW1
68 000112 000000      .WORD  0      :U.CW2
69 000114 000000      .WORD  0      :U.CW3, BLOCK COUNT FOR MULTI-BLOCK DMA IO.
70 000116 000000      .WORD  0      :U.CW4
71 000120 000162      .WORD  ACSCB1 :U.SCB, POINTER TO UNIT'S SCB.
72 000122 000000      .WORD  0      :U.ATT
73 000124 000000      .WORD  0      :U.BUF
74 000126 000000      .WORD  0      :U.CNT
75 000130 000000      .WORD  0      :
76
77      : STATUS CONTROL BLOCK ---- UNIT 0
78
79
.ACSCB0::
80 000132 000000      .WORD  0      :S.LHD
81 000134 000132      .WORD  -2.    :S.LHD
82 000136 240        .BYTE  PR5
83 000137 036        .BYTE  170/4  :S.VCT, DEVICE INTERRUPT VECTOR/4
84 000140 000        .BYTE  0      :S.CTM, CURRENT TIME OUT COUNT.
85 000141 024        .BYTE  20.    :S.ITM, INITIAL TIME OUT COUNT.
86 000142 000        .BYTE  0      :S.CON, CONTROLLER INDEX TIMES/2.
87 000143 000        .BYTE  0      :S.STS, CONTROLLER STATUS.
88 000144 167640      .WORD  167640 :S.CSR, ADDRESS OF THE FIRST CSR.
89 000146 000000      .WORD  0      :S.PKT, POINTER TO THE ACTIVE I/O PACKET.
90 000150 000000      .BLKW  5      :S.FRK, FORK SAVE AREA.
91
92      : STATUS CONTROL BLOCK ---- UNIT 1
93
94
.ACSCB1::
95 000162 000000      .WORD  0      :S.LHD
96 000164 000162      .WORD  -2.    :S.LHD
97 000166 240        .BYTE  PR5
98 000167 036        .BYTE  170/4  :S.VCT, DEVICE INTERRUPT VECTOR/4
99 000170 000        .BYTE  0      :S.CTM, CURRENT TIME OUT COUNT.
100 000171 024        .BYTE  20.    :S.ITM, INITIAL TIME OUT COUNT.
101 000172 002        .BYTE  2.    :S.CON, CONTROLLER INDEX TIMES/2.
102 000173 000        .BYTE  0      :S.STS, CONTROLLER STATUS.
103 000174 167640      .WORD  167640 :S.CSR, ADDRESS OF THE FIRST CSR.
104 000176 000000      .WORD  0      :S.PKT, POINTER TO THE ACTIVE I/O PACKET.
105 000200 000000      .BLKW  5      :S.FRK, FORK SAVE AREA.
106
107
108      : END OF THE ACC-HANDLER DATA-BASE.
109
110 000212 000001      $ACEND::
111
.END

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

ACDCB= 000000R	FE.DRV= 000010	M.LGTH= 000014	TPS= 177564	US.OUT= 000001
ACEND= 000074R	FE.EXP= 000200	M.LNK= 000000	T\$ACR= 000000	US.PUB= 000004
ACSCB0= 000132RG	FE.EXT= 000001	M.UMRA= 000002	T\$BTW= 000000	US.PWF= 000010
ACSCB1= 000162RG	FE.EXV= 000004	M.UMRN= 000004	T\$BUF= 000000	US.PED= 000002
ACSTRT= 000036R	FE.LSI= 000400	M.UMVH= 000010	T\$CCN= 000000	US.SHR= 000001
A\$CHK= 000000	FE.MUP= 000002	M.UMVL= 000006	T\$CCO= 000000	US.SPU= 000002
A\$CPS= 000000	FE.MKT= 040000	N\$LDV= 000001	T\$CTR= 000000	US.UMD= 000010
A\$C11= 000002	FE.NLG= 100000	N\$MOV= 000041	T\$GMC= 000000	US.UCK= 000010
A\$NSI= 000000	FE.PKT= 000100	PIRO= 177772	T\$GTG= 000000	U.ACP= 000032
A\$PR1= 000000	FE.PLA= 000020	PMODE= 030000	T\$HIG= 000000	U.ATT= 000022
A\$TRP= 000000	F\$LV= 000001	PR0= 000000	T\$LUC= 000000	U.BUF= 000024
CMODE= 140000	G\$TPP= 000000	PR1= 000040	T\$M11= 000001	U.CBF= 000032
C\$CDN= 000002	G\$TSS= 000000	PR4= 000200	T\$RNE= 000000	U.CNT= 000030
C\$CKP= 000000	G\$TTK= 000000	PR5= 000240	T\$RPR= 000000	U.CTL= 000004
C\$CSR= 177404	G\$URD= 000000	PR6= 000300	T\$RST= 000000	U.CW1= 000010
C\$INT= 000000	H\$RTZ= 000074	PR7= 000340	T\$RUB= 000000	U.CW2= 000012
C\$ORE= 002000	I\$RAR= 000000	PS= 177776	T\$SYN= 000000	U.CW3= 000014
C\$RSH= 177564	I\$RDN= 000000	P\$GMX= 000000	T\$TRW= 000000	U.CW4= 000016
C\$RUN= 000000	KDSHR0= 172360	P\$LAS= 000000	T\$UTB= 000000	U.DCB= 000000
C\$TTY= 177564	KDSDR0= 172320	P\$P45= 000000	T\$VBF= 000000	U.LUIC= 177774
DV.CCL= 000002	KISAR0= 172340	P\$RFL= 000000	T\$30F= 000000	U.OWN= 177776
DV.COM= 020000	KISAR5= 172352	P\$RTY= 000000	UBMPR= 170200	U.RED= 000002
DV.DIR= 000010	KISAR6= 172354	P\$SRF= 000000	UC.ALG= 000200	U.SCB= 000020
DV.F11= 040000	KISAR7= 172356	P\$URD= 000000	UC.ATT= 000010	U.STS= 000005
DV.ISP= 002000	KISDR0= 172300	Q\$OPT= 000007	UC.KIL= 000004	U.ST2= 000007
DV.MHT= 100000	KISDR6= 172314	R\$DER= 000000	UC.LGH= 000003	U.UIC= 000052
DV.MXD= 000100	KISDR7= 172316	R\$EXV= 000000	UC.NPR= 000100	U.UNIT= 000006
DV.OSP= 004000	K\$CNT= 177546	R\$K11= 000001	UC.PWF= 000020	U.VCB= 000034
DV.PSE= 010000	K\$CSR= 177546	R\$P11= 000001	UC.QUE= 000040	U2.AT= 000020
DV.REC= 000001	K\$IEN= 000115	R\$SND= 000000	UDSAR0= 177660	U2.CRT= 002000
DV.SDI= 000020	K\$LDC= 000001	R\$TIM= 000000	UDSDR0= 177620	U2.DH1= 100000
DV.SOD= 000040	K\$TPS= 000074	SISDR0= 172200	UISAR0= 177640	U2.DJ1= 040000
DV.SUL= 001000	LD\$M= 000000	SPARE= 000010	UISAR4= 177650	U2.DZ1= 000100
DV.TTY= 000004	L\$ASG= 000000	SP.EIP= 000001	UISAR5= 177652	U2.ESC= 001000
DV.UMD= 000200	L\$DRV= 000000	SP.ENB= 000002	UISAR6= 177654	U2.HLD= 000040
D\$ISK= 000000	L\$PTO= 000144	SP.LOG= 000004	UISAR7= 177656	U2.LOC= 000400
D\$SL1= 000004	L\$P11= 000001	SR0= 177572	UISDR0= 177600	U2.LUC= 000001
D\$SHF= 000000	L.ASG= 000010	SR3= 172516	UISDR4= 177610	U2.L3S= 000004
D\$SYN= 000000	L.LGTH= 000012	SWR= 177570	UISDR5= 177612	U2.L8S= 010000
D\$YNH= 000000	L.LNK= 000000	S\$YSZ= 007600	UISDR6= 177614	U2.NEC= 004000
D.DSP= 000012	L.NAM= 000002	S.BMSK= 177776	UISDR7= 177616	U2.PR1= 000010
D.LNP= 000000	L.TYPE= 000005	S.BMSV= 177774	US.ABO= 000001	U2.RHT= 020000
D.MSK= 000014	L.UCB= 000006	S.CON= 000010	US.BSP= 000002	U2.R04= 100000
D.NAM= 000004	L.UNIT= 000004	S.CSR= 000012	US.BSY= 000200	U2.SLV= 000200
D.PCB= 000034	MPAR= 172100	S.CTM= 000006	US.CRW= 000004	U2.VTS= 000002
D.UCB= 000002	MPCSR= 177746	S.FRK= 000016	US.DSB= 000010	U2.VCH= 010000
D.UCBL= 000010	M\$CRB= 000124	S.ITH= 000007	US.ECH= 000002	V\$CTR= 000404
D.UNIT= 000006	M\$CRX= 000000	S.LHD= 000000	US.FOR= 000040	V\$RSN= 000031
D.VCAN= 000002	M\$FCS= 000000	S.PKT= 000014	US.FRK= 000002	X\$DBT= 000000
D.VINI= 000000	M\$MGE= 000000	S.PR1= 000004	US.LAB= 000004	X\$M11= 000002
D.VOUT= 000004	M\$MUP= 000000	S.RCNT= 177772	US.MDE= 000002	\$ACDAT= 000000RG
D.VPWF= 000006	M\$DVR= 000000	S.ROFF= 177773	US.MDM= 000020	\$ACEND= 000120RG
E\$XPR= 000000	M.BFVH= 000011	S.STS= 000011	US.MNT= 000100	AG0= 000042RG
FE.CAL= 000040	M.BFVL= 000012	S.VCT= 000005	US.OFL= 000001	AC1= 000100RG
FE.CEX= 020000				

. ABS. 177776 000

ACC-HANDLER-DATA-BASE: MACRO-M1110 27-MAR-80 13:33 PAGE 3-3
SYMBOL-TABLE:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

000212 001
ERRORS-DETECTED: 0

VIRTUAL-MEMORY-USED: 3639 WORDS (15 PAGES)
DYNAMIC-MEMORY: 4916 WORDS (18 PAGES)
ELAPSED-TIME: 00:00:12
ACTAB,ACTAB/--SP=C 1.1 JEXEMC/ML,C 200,200 JRSXMC/PA:1,C 20,1 JACTAB

DMCIN: MACRO-M1110 27-MAR-80 13:24
TABLE OF CONTENTS:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

10-	2	MACRO'S AND CONSTANTS.
11-	25	ASSEMBLY-TIME DATA DEFINITIONS.
12-	103	INIT THE DMC - READ-HANG LOOP.
13-	142	SPOOL FILES.
14-	168	SINGLE-BLOCK EXCHANGES.
15-	197	DHR-BUFFERS.
16-	274	SUBROUTINES.

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
1 .TITLE .DMCIN...
2 .SBTTL .MACROS AND CONSTANTS.
3 ;
4 .MCALL .QIOW$C,QIOW$$,EXIT$$
5 .MCALL .SDAT$C,WTSE$$,CLEF$$
6 .MCALL .RSUM$C
7 .MCALL .FINIT$,FDAT$R,DFNB$W,WRITE$,WAIT$,CLOSE$
8 .MCALL .FDOF$L,FCSBT$,FDBDF$,FDRC$A,FDOF$A,FSRSZ$
9 .MCALL .FDBK$A
10 ;
11 .GLOBL .BLDNFL,.DLFNB
12 .GLOBL .SUINDX,SRECP,GETFRE,PUTSSQ
13 .GLOBL .DHRCON,SUDHRI,SUST
14 .GLOBL .SN
15 ;
16 ;LUNS
17 DPLUN=1
18 XMLUN=2
19 COLUN=6
20 ;
21 ;MISC EQUATES
22 EF:IO=1 ;I/O EVENT FLAG
23 ;
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

25      .SBTTL ASSEMBLY-TIME DATA DEFINITIONS
26 000000 .PSECT
27
28      ; I/O STATUS BLOCKS
29 000000 DMCIOS: .BLKW 2
30 000004 SYIOS: .BLKW 2
31
32
33
34 000010      FDOF$L
35 000010      FCSBT$
36
37      ; OUTPUT FILE FDB
38 000010 OFILE: FDBDF$
39 000150      FDRCS$A .FD.RWM
40 000150      FDBK$A .N.BUFB, .EF, IO, SYIOS
41 000150      FDOF$A .DPLUN
42
43      ;
44      FRSZ$ 0
45
46      ; EXCHANGE ID PARSE TABLE
47 000150 EXCHID: .ASCII /OF/
48 000152      .WORD FDRCS$
49 000154      .ASCII /AD/
50 000156      .WORD DUBSPL
51 000160      .ASCII /TR/
52 000162      .WORD DUBSPL
53 000164      .ASCII /HD/
54 000166      .WORD DHRBUF
55 000170      .ASCII /XS/
56 000172      .WORD SUXDON
57 000174      .ASCII /DU/
58 000176      .WORD DTBEND
59 000200      .ASCII /RC/
60 000202      .WORD STATRC
61      TABLSZ=<.-EXCHID>/4
62
63      ; ERROR MESSAGES
64 000204 ERR1: .WORD ERR1L
65 000206      104 115 103
66 000211      111 116 130
67 000214      072 040 104
68 000217      115 103 040
69 000222      123 124 101
70 000225      122 124 055
71 000230      125 120 040
72 000233      106 101 111
73 000236      114 125 122
74 000241      105
75 000034 ERR1L=-ERR1T
76
77      ;
78 000242 ERR2: .WORD ERR2L
79 000244      104 115 103
80 000247      111 116 130
81 000252      072 040 104
82 000255      115 103 040
83
84      ;
85 000255 ERR2T: .ASCII /DMCINX: DMC-READ FAILURE/

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

000260	122	105	101	
000263	104	040	106	
000266	101	111	114	
000271	125	122	105	
70	000030			ERR2L = -ERR2T
71				.EVEN
72				:
73	000274	000041		ERR3: .WORD: ERR3L
74	000276	104	115	ERR3T: .ASCII: /DMCINX: UNKNOWN EXCHANGE RECEIVED/
	000301	111	116	
	000304	072	040	
	000307	116	113	
	000312	117	127	
	000315	040	105	
	000320	103	110	
	000323	116	107	
	000326	040	122	
	000331	103	105	
	000334	126	105	
75	000041		104	ERR3L = -ERR3T
76				.EVEN
77				:
78	000340	000022		ERR4: .WORD: ERR4L
79	000342	104	115	ERR4T: .ASCII: /DMCINX: DISK ERROR/
	000345	111	116	
	000350	072	040	
	000353	111	123	
	000356	040	105	
	000361	122	117	
80	000022			ERR4L = -ERR4T
81				.EVEN
82				:
83	000364	000030		ERR5: .WORD: ERR5L
84	000366	104	115	ERR5T: .ASCII: /DMCINX: LINK INL
	000371	111	116	
	000374	072	011	
	000377	111	116	
	000402	040	111	
	000405	114	040	
	000410	040	040	
	000413	040	040	
85	000030			ERR5L = -ERR5T
86				.EVEN
87				:
88	000416	000026		ERR6: .WORD: ERR6L
89	000420	104	115	ERR6T: .ASCII: /DMCINX: CAN'T RUN TASK/
	000423	111	116	
	000426	072	040	
	000431	101	116	
	000434	124	040	
	000437	125	116	
	000442	124	101	
	000445	113	123	
90	000026			ERR6L = -ERR6T
91				.EVEN
92				:
93				:

DMCIN: MACRO-M1110 27-MAR-80 13:24 PAGE 11-2:
ASSEMBLY-TIME DATA DEFINITIONS

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

94			:MISC LOCATIONS:	
95	000446	000000	BLKCNT: .WORD	0 :EXCHANGE BLOCK COUNT
96	000450		SDATA: .BLKW	13 :SEND DATA BUFFER
97	000502	000000	UNITNB: .WORD	0 :THIS DMCIN'S DMC UNIT NUMBER*2 (0,2,4,...)
98	000504	000000	ADHRCT: .WORD	0 :ADDRESS OF THIS DMCIN'S DHR CONTROL WORDS
99			:	
100	000505	000001 000002	BITMAP: .WORD	BIT0,BIT1
101			:	

DMCIN: M1110 27-MAR-80 13:24 PAGE:12
 INIT: THE - READ: HANG: LOOP.

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

103      .SBTTL: INIT THE DMC - READ: HANG: LOOP.
104      ;
105      DMCIN: FINIT$
106      ;
107      ; DETERMINE OUR UNIT NUMBER.
108      MOV. #SN,R5 ;SAVE OUR UNIT #. TIMES: 2.
109      ADD. R5,R5
110      MOV. R5,UNITN$
111      MOV. SUDHRI(R5),R5 ;CONTROL TABLE ADDRESS
112      MOV. R5,ADHRCOM ;SAVE IT
113      MOV. DH:BF0(R5),R5 ;FIRST BUFFER ADDRESS
114      ADD. #DHRCOM,R5
115      ;
116      ; INIT DMC - WAIT FOR CONTROL.
117      QIOWSC: IO:TRM,XMLUN,EF,IO ;TERMINATE LINK
118      INLDMC: IO:INL,XMLUN,EF,IO ;INIT LINK
119      MOV. #ERR5,R0 ;MSG TO CONSOLE -
120      CALL. COOUT ; LINK INITIALIZED
121      ;
122      ;
123      ; HANG: A READ FOR THE NEXT EXCHANGE.
124      HANGRD: CALL. READMC ;READ LINK
125      BCS. INLDMC ;ERROR, RE-INITIALIZE
126      ;
127      ; PARSE EXCHANGE ID.
128      MSTRST: MOV. #EXCHID,R1 ;PARSE TABLE ADDRESS
129      MOV. #TABLSZ,R0 ;TABLE SIZE
130      CMP. (R1)+,(R5) ;CHECK ID MATCH
131      BNE. 2$ ;NO
132      JMP. 0(R1)+ ;GOT MATCH - GO TO ROUTINE
133      ;
134      2$: ADD. #2,R1 ;NEXT ENTRY
135      SOB. R0,1$ ;LOOP
136      MOV. #ERR3,R0 ;YES - REPORT ERROR
137      CALL. COOUT
138      BR. HANGRD
139      ;
140
105 000512.
106 000512.
107
108
109 000516 012705 000000G.
110 000522. 060505
111 000524 010567 177752
112 000530 016505 000000G.
113 000534 010567 177744
114 000540 016505 000002
115 000544 062705 000000G.
116
117
118 000550
119 000556
120 000564 012700 000364*
121 000570
122
123
124
125 000574
126 000600 103766
127
128
129 000602. 012701 000150*
130 000606 012700 000007
131 000612. 022115
132 000614 001001
133 000616 000131
134
135 000620 062701 000002
136 000624 077006
137 000626 012700 000274*
138 000632.
139 000636 000756
140

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

DMCIN:--MACRO-M1110 27-MAR-80 13:24 PAGE 13
SPOOL FILES:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
142.                                     .SBYTL- SPOOL FILES-
143.                                     ;
144.                                     ; GOT FOS IN-
145. 000640 016704 177636 FOSRCV: MOV- UNITNB,R4 ;UNIT-#-OF-OUR-DMC-
146. 000644 016404 000000G-      MOV- SUINDX(R4),R4 ;PUT-FDSC-IN-SU-
147. 000650 062704 000002      ADD- #SS,FID,R4 ; STATUS TABLE-
148. 000654 016401 000006      MOV- FD,FNB(R4),R1 ;FOS-FILE-NUMBER-
149. 000660      CALL WRTFIL- ;DMC-DATA-TO-FILE-
150. 000664 103734      BCS- INLDMC- ;RETRY-EXCHANGE-
151.                                     ;
152. 000666 012700 000001      MOV- #1,R0 ;SSQ-COMMAND-CODE-
153. 000672      CALL GDSCHD- ;TELL-SCHED-FOS-IS-IN-
154. 000676 000167 177672      JMP- HANGRD-
155.                                     ;
156.                                     ;
157.                                     ; RETRIEVED DOCUMENT OR DATA BASE UPDATE SPOOL FILE-
158. 000702- 012704 000452- DUBSPL: MOV- #SDATA+2,R4 ;PUT-FDSC-IN-SEND-PACKET-
159. 000706 012701 000026      MOV- #FN,DBR,R1 ;FILE-NUMBER-
160. 000712      CALL WRTFIL- ;DMC-DATA-TO-FILE-
161. 000716 103717      BCS- INLDMC- ;RETRY-EXCHANGE-
162.                                     ;
163. 000720 112767 000004 177523      MOVB- #4,SDATA+1 ;COMMAND-BYTE-
164. 000726      CALL GDH0TK- ;QUEUE-TO-H0TSK-
165. 000732- 000167 177636      JMP- HANGRD-
166.                                     ;
```

Approved For Release 2005/07/20 : CIA-RDP85-00514R000100030001-3

```

168                                     ; SBTTL - SINGLE-BLOCK-EXCHANGES.
169                                     ;
170                                     ;
171                                     ; SUXX-DONE.
172 000736 012700 000000          SUXDON: MOV.      #0,R0          ;COMMAND-0 TO-MSCHED
173 000742          CALL.      GOSCHD.
174 000746 000167 177622          JMP.      HANGRD.
175                                     ;
176                                     ;
177                                     ; DATA-BASE-END.
178 000752 012700 000002          DTBEND: MOV.      #2,R0          ;COMMAND-2 TO-MSCHED
179 000756          CALL.      GOSCHD.
180 000762 000167 177606          JMP.      HANGRD.
181                                     ;
182                                     ;
183                                     ; STATUS-RECORD - COPY TO-MCOM
184 000766 016700 177510          STATRC: MOV.      UNITHB,R0          ;GET-ADDRESS-OF-THIS SU'S
185 000772 016000 000000G.        MOV.      SREPT(R0),R0          ; STATUS-RECORD-IN-MCOM.
186 000776 010501          MOV.      R5,R1          ; INPUT-DATA-ADDRESS.
187 001000 062701 000002          ADD.      #2,R1
188 001004 012702 000051          MOV.      #SR:LEN/2,R2.
189 001010 012120          1$:      MOV.      (R1)+(R0)+          ;LENGTH-OF-DATA.
190 001012 077202          SOB.      R2,1$          ;COPY-DATA TO-MCOM.
191                                     ;
192 001014 012700 000003          MOV.      #3,R0          ;COMMAND-3 TO-MSCHED
193 001020          CALL.      GOSCHD.
194 001024 000167 177544          JMP.      HANGRD.
195                                     ;

```


Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

197          ,SETTL DHR-BUFFERS.
198          :
199          : GOT-A-DHR-BUFFER-INPUT- NOT-CONCATENATING-YET.
200          :
201 001030 005765 003776 DHRBUF: TST N,BUFB-2(R5) ;BRANCH-IF-CONTINUATION-DHR-
202 001034 100467 BMI STRCT:
203          :
204          :
205          : SINGLE-BLOCK-DHR.
206 001036 116765 177776G-000002 MOVB SUST-2,2(R5) ;BATCH-#-IN-DHR-BUFFER.
207 001044 105065 000003 CLR 3(R5)
208          :
209 001050 016702 177430 MOV ADHRC,R2 ;CONTROL-AREA-ADDRESS.
210 001054 116203 000010 MOVB DH,DMC(R2),R3 ;CURRENT-BUFFER-#
211 001060 042703 177776 BIC #177776,R3
212 001064 060303 ADD R3,R3
213 001066 056362 000506* 000000 BIS BITMAP(R3),DH,CTL(R2) ;SHOW-ITS-FULL.
214          :
215 001074 112767 000005 177347 : QUEUE-BUFFER-TO-HOTSK
216 001102 010267 177344 MOVB #5,SDATA+1 ;BUILD-SEND-PACKET.
217 001106 010567 177342 MOV R2,SDATA+2
218 001112 016367 000506* 177336 MOV R5,SDATA+4
219 001120 CALL BITMAP(R3),SDATA+6
220          :
221 001124 105262 000010 INCB DH,DMC(R2) ;NEXT-BUFFER-NUMBER.
222 001130 062703 000002 ADD #2,R3
223 001134 042703 177775 BIC #177775,R3
224 001140 036362 000506* 000000 TNXTBF: BIT BITMAP(R3),DH,CTL(R2) ;NEXT-BUFFER-INDEX.
225 001146 001007 BNE WAITBF ;SEE-IF-NEXT-BUFFER-BUSY.
226 001150 060203 ADD R2,R3 ;YES.
227 001152 016305 000002 MOV DH,BF0(R3),R5 ;NEXT-BUFFER-ADDRESS.
228 001156 062705 000000G ADD #DHRCOM,R5
229 001162 000167 177406 JMP HANGRD.
230          :
231 001166 WAIT: FOR-HOTSK-TO-FREE-NEXT-BUFFER.
232 001200 WAITBF: WTSE$S DH,FLG(R2) ;WAIT
233 001212 000752 CLEF$S DH,FLG(R2)
234          :
235          :
236          :
237 001214 012703 000010 : START-OF-DHR-CONTINUATION-RECORDS.
238 001220 012701 000040 STRCT: MOV #2*N,BFAC,R3 ;OPEN-OUTPUT-FILE--MIN-2-BLOCKS.
239 001224 CALL #FN,DHR,R1 ;FILE-NUMBER.
240 001230 012715 046504 NEXTHD: MOV #*DM,(R5) ;EXCHANGE-ID.
241 001234 116765 177776G-000002 MOVB SUST-2,2(R5) ;BATCH-NUMBER.
242 001242 105065 000003 CLR 3(R5)
243 001246 CALL WRTBLK ;WRITE-A-BLOCK.
244 001252 005765 003776 TST N,BUFB-2(R5) ;BRANCH-IF-LAST-BLOCK.
245 001256 001432 BEQ DONCNT.
246          :
247 001260 NEXTBF: CALL READMC ;READ-NEXT-BUFFER.
248 001264 103004 BCC 1$ ;NO-ERROR.
249 001266 CALL DLETF ;ERROR--DELETE-FILE.
250 001272 000167 177260 JMP INLDHC ;RETRY-EXCHANGE.
251          :
252 001276 022715 051530 1$: CMP #*XS,(R5) ;BRANCH-IF-NOT-SUCCESS-DONE.
253 001302 001005 BNE 2$

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

DMCIN: M1110 27-MAR-80 13:24 PAGE 15-1
DHR: BUFFER

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

254	001304	012700	000000	MOV.	#0,R0	;SUX%-DONE ALLOWED TO INTERLEAVE.
255	001310			CALL.	GOSCHD.	
256	001314	000761		BR	NEXTBF.	;GET NEXT BUFFER.
257						
258	001316	022715	042110	258: CMP.	##HD,(R5)	;WRITE BUFFER TO FILE IF
259	001322	001742		BEO.	NEXTHD.	; DHR BUFFER.
260	001324			CALL.	DLETF.	; SYNC ERROR - ABORT.
261	001330	012700	000274	MOV.	#ERR3,R0	; UNKNOWN EXCHANGE.
262	001334			CALL.	COOUT.	
263	001340	000167	177236	JMP.	MSTRST.	;PARSE EXCHANGE.
264						
265	001344	012704	000452	; DONE WITH CONTINUATION RECORDS.		
266	001350	012701	000040	DONCNT: MOV.	#SDATA+2,R4	;BUILD FDSC IN SEND PACKET.
267	001354			MOV.	#FH,DHR,R1	;FILE NUMBER.
268	001360	112767	000006 177063	CALL.	CLOSFL.	;CLOSE OUTPUT FILE.
269	001366			MOVB.	#6,SDATA+1	;COMMAND TO HOTSK.
270	001372	000167	177176	CALL.	G0H0TK.	
271				JMP.	HANGPD.	
272						

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

274          .SBTTL SUBROUTINES.
275          :
276          :
277          : GO TO SCHEDULER IN SSQ.
278          : INPUT - R0: COMMAND BYTE.
279          :
280 001376      GOSCHD: CALL GETFRE:          :GET A PACKET.
281 001402      MOV      *XDMCIN,2(R2)      :SOURCE ID
282 001410      MOV      R0,3(R2)           :COMMAND
283 001414      MOV      UNITNB,4(R2)       :SU NUMBER
284 001422      ASR      4(R2)
285 001426      CALL    PUTSSQ:           :PUT PACKET TO SCHED
286 001432      RTS      PC
287          :
288          :
289          : GO TO HOTSK IN RCVO.
290          : INPUT - SDATA+1: COMMAND BYTE.
291          : SDATA+2: PACKET DATA
292          :
293 001434      GOHOTK: MOV      *XDMCIN,SDATA: :COMMAND SOURCE
294 001442      SDAT%   HOTSK,SDATA:         :SEND DATA TO HOTSK
295 001450      BCC      TSKGD:
296 001452      MOV      *ERR6,R0          :ERROR
297 001456      JMP      ERROR:
298          :
299          : TSKGD: RSUM%   HOTSK:         :RESUME HOTSK
300 001470      BCC      1$                :BRANCH IF OK
301 001472      CMP      $DSW,*IE,ITS:      :IE,ITS ONLY ACCEPTABLE ERROR
302 001500      BNE      TSKERR:
303 001502      RTS      PC
304          :
305          :
306          : READ THE DMC - INTO BUFFER 0 OR 1
307          : INPUT/OUTPUT - R5= BUFFER ADDRESS
308          :
309 001504      READDMC: QIOWS:  #IO,RLB,*XHLUN,*EF,IO,,*DMC IOS,<R5,*N,BUFB>
310 001554      CMPB:  #IS,SUC,DMC IOS      :SUCCESS?
311 001562      BEQ      1$                :YES
312 001564      BEQ      1$                :CONNECTION REJECTED?
313 001572      CMPB:  #IE,CNR,DMC IOS      :YES, RETURN INIT REQUEST
314 001574      BEQ      2$                :DEVICE NOT READY?
315 001602      CMPB:  #IE,DNR,DMC IOS      :YES, RETURN INIT REQUEST
316 001604      BEQ      2$                :REQUEST ABORTED?
317 001612      CMPB:  #IE,ABO,DMC IOS      :YES, RETURN INIT REQUEST
318 001614      BEQ      2$                :TIME OUT?
319 001622      CMPB:  #IE,THO,DMC IOS      :YES
320 001624      BEQ      2$                :NO - ERROR EXIT
321 001630      MOV      *ERR2,R0
322          :
323          :
324          :
325          :
326          :
327          :
328          :
329          :
330          :
331          :
332          :
333          :
334          :
335          :
336          :
337          :
338          :
339          :
340          :
341          :
342          :
343          :
344          :
345          :
346          :
347          :
348          :
349          :
350          :
351          :
352          :
353          :
354          :
355          :
356          :
357          :
358          :
359          :
360          :
361          :
362          :
363          :
364          :
365          :
366          :
367          :
368          :
369          :
370          :
371          :
372          :
373          :
374          :
375          :
376          :
377          :
378          :
379          :
380          :
381          :
382          :
383          :
384          :
385          :
386          :
387          :
388          :
389          :
390          :
391          :
392          :
393          :
394          :
395          :
396          :
397          :
398          :
399          :
400          :
401          :
402          :
403          :
404          :
405          :
406          :
407          :
408          :
409          :
410          :
411          :
412          :
413          :
414          :
415          :
416          :
417          :
418          :
419          :
420          :
421          :
422          :
423          :
424          :
425          :
426          :
427          :
428          :
429          :
430          :
431          :
432          :
433          :
434          :
435          :
436          :
437          :
438          :
439          :
440          :
441          :
442          :
443          :
444          :
445          :
446          :
447          :
448          :
449          :
450          :
451          :
452          :
453          :
454          :
455          :
456          :
457          :
458          :
459          :
460          :
461          :
462          :
463          :
464          :
465          :
466          :
467          :
468          :
469          :
470          :
471          :
472          :
473          :
474          :
475          :
476          :
477          :
478          :
479          :
480          :
481          :
482          :
483          :
484          :
485          :
486          :
487          :
488          :
489          :
490          :
491          :
492          :
493          :
494          :
495          :
496          :
497          :
498          :
499          :
500          :
501          :
502          :
503          :
504          :
505          :
506          :
507          :
508          :
509          :
510          :
511          :
512          :
513          :
514          :
515          :
516          :
517          :
518          :
519          :
520          :
521          :
522          :
523          :
524          :
525          :
526          :
527          :
528          :
529          :
530          :
531          :
532          :
533          :
534          :
535          :
536          :
537          :
538          :
539          :
540          :
541          :
542          :
543          :
544          :
545          :
546          :
547          :
548          :
549          :
550          :
551          :
552          :
553          :
554          :
555          :
556          :
557          :
558          :
559          :
560          :
561          :
562          :
563          :
564          :
565          :
566          :
567          :
568          :
569          :
570          :
571          :
572          :
573          :
574          :
575          :
576          :
577          :
578          :
579          :
580          :
581          :
582          :
583          :
584          :
585          :
586          :
587          :
588          :
589          :
590          :
591          :
592          :
593          :
594          :
595          :
596          :
597          :
598          :
599          :
600          :
601          :
602          :
603          :
604          :
605          :
606          :
607          :
608          :
609          :
610          :
611          :
612          :
613          :
614          :
615          :
616          :
617          :
618          :
619          :
620          :
621          :
622          :
623          :
624          :
625          :
626          :
627          :
628          :
629          :
630          :
631          :
632          :
633          :
634          :
635          :
636          :
637          :
638          :
639          :
640          :
641          :
642          :
643          :
644          :
645          :
646          :
647          :
648          :
649          :
650          :
651          :
652          :
653          :
654          :
655          :
656          :
657          :
658          :
659          :
660          :
661          :
662          :
663          :
664          :
665          :
666          :
667          :
668          :
669          :
670          :
671          :
672          :
673          :
674          :
675          :
676          :
677          :
678          :
679          :
680          :
681          :
682          :
683          :
684          :
685          :
686          :
687          :
688          :
689          :
690          :
691          :
692          :
693          :
694          :
695          :
696          :
697          :
698          :
699          :
700          :
701          :
702          :
703          :
704          :
705          :
706          :
707          :
708          :
709          :
710          :
711          :
712          :
713          :
714          :
715          :
716          :
717          :
718          :
719          :
720          :
721          :
722          :
723          :
724          :
725          :
726          :
727          :
728          :
729          :
730          :
731          :
732          :
733          :
734          :
735          :
736          :
737          :
738          :
739          :
740          :
741          :
742          :
743          :
744          :
745          :
746          :
747          :
748          :
749          :
750          :
751          :
752          :
753          :
754          :
755          :
756          :
757          :
758          :
759          :
760          :
761          :
762          :
763          :
764          :
765          :
766          :
767          :
768          :
769          :
770          :
771          :
772          :
773          :
774          :
775          :
776          :
777          :
778          :
779          :
780          :
781          :
782          :
783          :
784          :
785          :
786          :
787          :
788          :
789          :
790          :
791          :
792          :
793          :
794          :
795          :
796          :
797          :
798          :
799          :
800          :
801          :
802          :
803          :
804          :
805          :
806          :
807          :
808          :
809          :
810          :
811          :
812          :
813          :
814          :
815          :
816          :
817          :
818          :
819          :
820          :
821          :
822          :
823          :
824          :
825          :
826          :
827          :
828          :
829          :
830          :
831          :
832          :
833          :
834          :
835          :
836          :
837          :
838          :
839          :
840          :
841          :
842          :
843          :
844          :
845          :
846          :
847          :
848          :
849          :
850          :
851          :
852          :
853          :
854          :
855          :
856          :
857          :
858          :
859          :
860          :
861          :
862          :
863          :
864          :
865          :
866          :
867          :
868          :
869          :
870          :
871          :
872          :
873          :
874          :
875          :
876          :
877          :
878          :
879          :
880          :
881          :
882          :
883          :
884          :
885          :
886          :
887          :
888          :
889          :
890          :
891          :
892          :
893          :
894          :
895          :
896          :
897          :
898          :
899          :
900          :
901          :
902          :
903          :
904          :
905          :
906          :
907          :
908          :
909          :
910          :
911          :
912          :
913          :
914          :
915          :
916          :
917          :
918          :
919          :
920          :
921          :
922          :
923          :
924          :
925          :
926          :
927          :
928          :
929          :
930          :
931          :
932          :
933          :
934          :
935          :
936          :
937          :
938          :
939          :
940          :
941          :
942          :
943          :
944          :
945          :
946          :
947          :
948          :
949          :
950          :
951          :
952          :
953          :
954          :
955          :
956          :
957          :
958          :
959          :
960          :
961          :
962          :
963          :
964          :
965          :
966          :
967          :
968          :
969          :
970          :
971          :
972          :
973          :
974          :
975          :
976          :
977          :
978          :
979          :
980          :
981          :
982          :
983          :
984          :
985          :
986          :
987          :
988          :
989          :
990          :
991          :
992          :
993          :
994          :
995          :
996          :
997          :
998          :
999          :
1000         :

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

331 001666          RESTOR R0,R1,R2
332 001674 000261    SEC
333 001676 000207    RTS      PC
334
335
336
337
338
339
340
341 001700 016503 000002    WRTFIL: MOV 2(R5),R3      ; EXCHANGE BLOCK COUNT
342 001704 010367 176536    MOV  R3,BLKCHT
343 001710 070327 000004    MUL  #N,BFAC,R3      ; # OF VIRTUAL BLOCKS
344 001714
345
346 001720
347 001724 005367 176516    2$: CALL WRTBLK
348 001730 001407          DEC  BLKCHT
349 001732          BEQ  3$
350 001736 103370          CALL PEADMC
351 001740          BCC  2$
352 001744 000261          CALL DLETFL
353 001746 000207          SEC
354
355 001750          RTS      PC
356 001754 000241          3$: CALL CLOSFL
357 001756 000207          CLC
358
359
360
361
362
363
364 001760 005403          OPENFL: NEG  R3
365 001762          FDHTR #OFIL,R3      ; INITIAL ALLOCATION
366 001772          CALL BLDNFL
367 001776          OFNB$W
368 002010 103445          BCS  FILERR
369 002012 000207          RTS      PC
370
371
372
373
374 002014          ; WRITE A BLOCK TO THE FILE
375 002030          ; INPUT: R5- BUFFER ADDRESS
376 002034 122767 000000G 175742    WRTBLK: WRITE$ #OFIL,R5      ; WRITE
377 002042 001030          WAIT$
378 002044 000207          CMPB  #IS,SUC,SYIOS
379
380
381
382
383
384 002046 012700 000010'    CLOSFL: MOV  #OFIL,R0      ; FDB
385 002052 016064 000102 000000    MOV  F,FNB+N,FID(R0),FD,FID(R4) ; BUILD FDSC
386 002060 016064 000104 000002    MOV  F,FNB+N,FID+2(R0),FD,FID+2(R4)
387 002066 016064 000120 000004    MOV  F,FNB+N,FVER(R0),FD,FVR(R4)

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

DMCIN: MACRO-M1110 27-MAR-80 13:24 PAGE 16-2
SUBROUTINES:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
388 002074 010164 000006      MOV.    R1,FD,FNB(R4)
389 002100                      CLOSE.
390 002104 103407      BCS.    FILERR.
391 002106 000207      RTS.    PC.
392.
393.
394.
395 002110 012700 000010*      DLETFL: MOV.    #OFIL,R0
396 002114                      CALL.    .DLFNB.
397 002120 103401      BCS.    FILERR.
398 002122. 000207      RTS.    PC.
399.
400.
401.
402.
403 002124 012700 000010*      FILERR: MOV.    #OFIL,R0
404 002130                      CALL.    .DLFNB.
405 002134 012700 000340*      MOV.    #ERR4,R0
406 002140 000435      BR.      ERROR.
407.
408.
409.
410.
411.
412.
413 002142. 012001      CDOUT: MOV.    (R0)+,R1
414 002144 116760 176332 000005      MOV.    UNITNB,5(R0)
415 002152. 106260 000005      ASRB.    5(R0)
416 002156 152760 000060 000005      BISB.    #60,5(R0)
417 002164                      DIOW.    #10,ULB,#COLUN,#EF:IO,,,<R0,R1,#40>
418 002232. 000207      RTS.    PC.
419.
420.
421.
422.
423.
424.
425 002234      ERROR: CALL.    CDOUT.
426 002240                      EXIT.
427.
428.
429.
430      000512*      .END.    DMCIN.
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

ADHRCCT=000504R	B.NORY=000232	010 ERR4T=000342R	FN.DBS=000022	011 F.OVBS=000030
BITMAP=000506R	B.QLSZ=000106	010 ERR5=000364R	FN.DHR=000040	011 F.RACC=000016
BITVAL=000000	B.QMAP=000234	010 ERR5L=000030	FN.EMA=000012	011 F.RATT=000001
BIT0=000001	B.OSPL=000316	010 ERR5T=000366R	FN.EMB=000014	011 F.RCNH=000034
BIT1=000002	B.OTTM=000076	010 ERR6=000416R	FN.EMC=000016	011 F.RCTL=000017
BIT10=0002000	B.QUQP=000056	010 ERR6L=000026	FN.FSA=000000	011 F.RSIZ=000002
BIT11=0004000	B.SFDB=000010	010 EPR6T=000420R	FN.FSB=000002	011 F.PTYP=000000
BIT12=0100000	B.SIZE=000772	010 EXCHID=000150R	FN.FSC=000004	011 F.SEON=000100
BIT13=0200000	B.SNDP=000012	010 FA.APD=000100	FN.LGQ=000034	011 F.SPDV=000072
BIT14=0400000	B.SSQ=000004	010 FA.CRE=000010	FN.LGU=000036	011 F.SPUN=000074
BIT15=1000000	B.SSQF=000050	010 FA.DLK=001000	FN.MFO=000024	011 F.STBK=000036
BIT2=000004	B.STAT=000044	010 FA.EMB=100000	FN.MHR=000010	011 F.UNIT=000136
BIT3=000010	B.STTE=000053	010 FA.EXC=002000	FN.NMB=000044	011 F.URBD=000020
BIT4=000020	B.UDOC=000110	010 FA.EXT=000004	FN.QLS=000006	011 F.VBH=000064
BIT5=000040	CF.A0=000070	FA.NSP=000100	FN.QRY=000020	011 F.VBSZ=000060
BIT6=000100	CF.B2=000067	FA.POS=010000	FN.SF0=000030	011 GETFRE=000000 G
BIT7=000200	CF.B4=000066	FA.RD=000001	FN.SF1=000032	011 GOHOTK=001434R
BIT8=000400	CF.B6=000065	FA.RUD=000000	FN.SHD=000042	011 GOSCHD=001376R
BIT9=001000	CF.DR0=000064	FA.SEO=040000	FN.SRCV=000640R	HANGRD=000574R
BLDNFL=000000 G	CF.DR1=000063	FA.SHR=000040	FO.APD=000106	IE.ABO=000000 GX
BLKCNT=000446R	CH.AND=000001	FA.THP=000020	FO.MFY=000002	IE.CNR=000000 GX
BS.CLS=000002	CLOSFL=002046R	FA.WCK=020000	FO.RD=000001	IE.DNR=000000 GX
BS.DBU=000004	COLUN=000006	FA.WPT=000002	FO.UPD=000006	IE.ITS=000000 GX
BS.INH=000000	COOUT=002142R	FD.BLK=000010	FO.WRT=000016	IE.TMO=000000 GX
BS.OPN=000001	DBSLEN=000116	FD.CCL=000002	F.ACTL=000076	INLIMC=000556R
BS.SRC=000003	DHRBUF=001030R	FD.COM=020000	F.ALOC=000040	IO.INL=000000 GX
BYTE0=000000	DHRCOM=000000 G	FD.CR=000002	F.BBFS=000062	IO.RLB=000000 GX
BYTE1=000001	DH.BF0=000002	005 FD.DIR=000010	F.BDB=000070	IO.TRM=000000 GX
BYTE2=000002	DH.BF1=000004	005 FD.FID=000000	F.BGBC=000057	IO.WLB=000000 GX
BYTE3=000003	DH.CTL=000000	005 FD.FHB=000006	003 F.BKDN=000026	IS.SUC=000000 GX
BYTE4=000004	DH.DMC=000010	005 FD.FTN=000001	F.BKDS=000020	M=000062
BYTE5=000005	DH.FLG=000006	005 FD.FVR=000004	003 F.BKEF=000050	MSTRST=000602R
BYTE6=000006	DLETFL=002110R	FD.F11=040000	F.BKP1=000051	N=000002
BYTE7=000007	DMCIN=000512R	FD.INS=000010	F.BKST=000024	NB.DEV=000200
BYTE8=000010	DMCLOS=000000R	FD.ISP=002000	F.BKVB=000064	NB.DIR=000100
BYTE9=000011	DN.DCK=000000	013 FD.LEN=000010	003 F.CHR=000075	NB.NAM=000004
BYTVAL=000012	DN.NTP=000004	013 FD.MNT=100000	F.CNTG=000034	NB.SD1=000400
B.BSTA=000054	010 DN.NXT=000006	013 FD.OSP=000000	F.DFNB=000046	NB.SD2=001000
B.CNTX=000046	010 DN.ROT=000002	013 FD.PLC=000004	F.DSPT=000044	NB.SNM=000040
B.CQUQ=000060	010 DN.SIZ=000010	013 FD.PRN=000004	F.DVNM=000134	NB.STP=000020
B.FEMA=000132	010 DONCNT=001344R	FD.PSE=010000	F.EFBK=000010	NB.SVR=000010
B.FEMB=000142	010 DPLUN=000001	FD.RAH=000001	F.EFN=000050	ND.TYP=000002
B.FEMC=000152	010 DTBEND=000752R	FD.RAN=000002	F.EOBB=000032	NB.VER=000001
B.FFSA=000202	010 DURSPL=000702R	FD.REC=000001	F.ERR=000052	NEXTBF=001260R
B.FFSB=000212	010 EF.10=000001	FD.RUM=000001	F.FACC=000043	NEXTHD=001230R
B.FFSC=000222	010 ERROR=002234R	FD.SDI=000020	F.FFBY=000014	N.BFAC=000004
B.FFMR=000172	010 ERR1=000204R	FD.SOD=000040	F.FNAM=000110	N.BHGH=000006
B.FQLS=000162	010 ERR1L=000034	FD.TTY=000004	F.FNB=000102	N.BTCH=000004
B.FSAZ=000100	010 ERR1T=000206R	FD.WBH=000002	F.FTYP=000116	N.BUFB=000400
B.FSBZ=000102	010 ERR2=000242P	FF.CHR=000005	F.FVER=000120	N.BUFW=000200
B.FSCZ=000104	010 ERR2L=000030	FF.NV=000003	F.HIBK=000004	N.DID=000024
B.HBLK=000120	010 EPR2T=000244R	FF.POE=000002	F.LUN=000042	N.DVNM=000032
B.HDOC=000114	010 ERR3=000274R	FF.RUD=000001	F.MBCT=000054	N.FID=000000
B.HRLP=000126	010 EPR3L=000041	FF.RUF=000006	F.MBC1=000055	N.FNAM=000006
B.HRLR=000122	010 ERR3T=000276R	FF.SPC=000004	F.MBFG=000056	N.FOS=000764
B.HRLU=000124	010 ERR4=000340R	FILERR=002124R	F.NRBD=000024	N.FTYF=000014
B.NMBR=000052	010 ERR4L=000022	FN.DBR=000026	011 F.NREC=000030	N.FVER=000016

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

DMCIN: MACRO-M1110 27-MAR-80 13:24 PAGE 16-4
SYMBOL TABLE:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

N: NEXT = 000022	SR: ARS 000106	002: STRCT = 001214R	S: FNB = 000036	XBATCH = 000013
N: PKSZ = 000020	SR: DAY 000010	002: ST: ASZ = 000020	006 S: FNBW = 000017	XDBLOA = 000004
N: PKTS = 000043	SR: DLT 000014	002: ST: BSZ = 000024	006 S: FNTY = 000004	XDBPRO = 000012
N: QURY = 000031	SR: ECB 000047	002: ST: BTC = 000000	006 S: FTYF = 000002	XDMCIN = 000006
N: STAT = 000020	SR: ECH 000046	002: ST: CSZ = 000030	006 S: HRL = 000240	XFOGMR = 000007
N: SUNT = 000002	SR: ECL 000050	002: ST: HRL = 000010	006 S: NFEN = 000020	XGTSRE = 000014
N: UNIT = 000034	SR: FIB 000012	002: ST: LEN = 000044	006 TABLSZ = 000007	XHITSK = 000011
OF IL = 000010R	SR: GRE 000100	002: ST: QRY = 000002	006 TNXTBF = 001140R	XHLMER = 000002
OPENFL = 001760R	SR: GRS 000072	002: ST: OSZ = 000034	006 TSKERR = 001452R	XHOTSK = 000010
PAR\$\$\$ = 000027	SR: LEN 000122	002: ST: SCH = 000040	006 TSKED = 001462R	XMLUN = 000002
PUTSSD = ***** G	SR: LIP 000066	002: ST: UHL = 000004	006 UNITNB = 000502R	XMSCH = 000000
QE: ROI = 000144	007 SR: MON 000006	002: ST: XLT = 000014	006 WAITBF = 001166R	XQTS = 000003
Q: FDSC = 000004	SR: NDC 000042	002: SUDHRI = ***** G	WN: NTP = 000004	012: XQT0 = 000001
Q: IOAE = 000012	SR: NDS 000036	002: SUINDX = ***** G	WN: NXT = 000006	012: XSULO = 000005
Q: IOEF = 000006	002: SUST = ***** G	002: SUXDON = 000736R	WN: ROT = 000002	012: \$CDSG = ***** GX
Q: IOFN = 000002	SR: NIN 000030	002: SU: DBU = 000004	WN: SI2 = 000010	012: \$DSW = ***** GX
Q: IOLU = 000004	SR: NIP 000022	002: SU: DON = 000006	WN: SRC = 000000	012: \$\$\$ = 000072R
Q: IOPL = 000014	SR: SDB 000032	002: SU: IDL = 000000	WN: TYP = 000001	012: \$\$\$ARG = 000002
Q: IOPR = 000007	SR: SRC 000002	002: SU: LOD = 000001	WORD0 = 000000	\$\$\$DST = 000006
Q: IOSB = 000010	SR: SUN 000000	002: SU: SRC = 000002	WORD1 = 000002	\$\$\$T1 = 000005
Q: NOBK = 000000	007 SR: TWS 000056	002: SU: SRR = 000005	WORD2 = 000004	.CLOSE = ***** G
Q: NUHL = 000002	007 SR: USL 000052	002: SU: XPD = 000003	WORD3 = 000006	.DLFNB = ***** G
Q: SIZE = 000014	007 SR: YR = 000004	002: SYIOS = 000004R	WORD4 = 000010	.FINIT = ***** G
READMC = 001504R	SP: 11N 000024	002: S: BFHD = 000020	WORD5 = 000012	.FSRCB = ***** G
R: FIX = 000001	SR: IIP 000016	004 S: DABA = 000006	WORD6 = 000014	.OPFNB = ***** G
R: SEQ = 000003	SS: FID 000002	004 S: DAEE = 000010	WORD7 = 000016	.WAIT = ***** G
R: SUTN = 000002	SS: FNB 000010	004 S: DATN = 000002	WORD8 = 000020	.WRITE = ***** G
R: VAR = 000002	SS: FVR 000006	004 S: FATT = 000016	WORD9 = 000022	...GBL = 000000
S: DATA = 000450R	SS: LTH 000012	004 S: FDB = 000140	WRDVAL = 000024	...PC1 = 000010R
SN = ***** G	SS: STT 000000	S: FNAM = 000006	WRTBLK = 002014R	...PC2 = 000150R
SRECPT = ***** G	STATRC 000766R		WRTFIL = 001700R	...TPC = 000020
SR: ARE = 000114	002:			
.ABS = 000000	000			
.SRCOFF = 000122	001			
.FDSCOF = 000010	002			
.SUSOFF = 000012	003			
.DHROFF = 000012	004			
.STTOFF = 000044	005			
.QSPLOF = 000014	006			
.BSTOFF = 000772	007			
.FNOFFS = 000044	010			
.WNDOF = 000010	011			
.DNDOF = 000010	012			
\$\$\$FSR1 = 000000	013			
\$\$\$PBB = 000100	014			
ERPRS DETECTED:	015			
	0			

VIRTUAL MEMORY USED: 7482 WORDS (30 PAGES)
DYNAMIC MEMORY: 9140 WORDS (35 PAGES)
ELAPSED TIME: 00:00:57
DMCIN, DMCIN/SP=C20, 13P, M, DMCIN

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

SULOAD: MACRO-M1110 27-MAR-80 13:19
TABLE OF CONTENTS:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

10-	2-	MACRO'S AND CONSTANTS.
11-	21	ASSEMBLY-TIME DATA DEFINITIONS.
12-	79	GET-RECEIVE-PACKET, INITIALIZE, SEND-FILES.

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

1      .TITLE= SULOAD
2      .SBTTL= MACRO'S AND CONSTANTS
3
4      .MCALL= FDOF$L,FCSBT$,FDBDF$,FDRC$A
5      .MCALL= FDBK$A,FIDP$A,FSRSZ$,FINIT$
6      .MCALL= RCYX$C,ALUN$S,QIOW$C,QIOW$S,EXIT$S
7      .MCALL= SDAT$C,RCST$C
8      .MCALL= MRKT$C,WTSE$C
9      .MCALL= OFNB$R,READ$,WAIT$,CLOSE$
10
11     .GLOBL= BLDEFL,BSTPTR
12
13     ;LUNS
14     DPLUN=3
15     COLUN=6
16
17     ;MISC EQUATES
18     EF.IO=1      ; I/O EVENT FLAG
19

```

000003
000006

000001

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
21 .SBTTL ASSEMBLY-TIME DATA DEFINITIONS.
22 .PSECT
23
24 FDOF$L
25 FCSBT$
26
27 ; INPUT FILE FDB
28 FDB: FDBDF$
29 FDBK$A FDB.RUM
30 FDBK$A DATBUF,H:BUF,EF,IO,I0STAT
31 FDBK$A DPLUN
32
33 FRSZ$ 0
34
35 ; MISC LOCATIONS
36 DATBUF: .BLK 0 N:BUF: ;BLOCK DATA BUFFER
37 I0STAT: .BLK 2 ;I/O STATUS BLOCK
38 XMLUN: .WORD 1 ;LUN 1 = XM0
39 ;LUN 2 = XM1
40 RDATA: .BLK 2 ;RECEIVE DATA FROM MSCHED
41 .WORD 0 ;COMMAND
42 .BYTE 0 ;BATCH #
43 .BYTE 0 ;JUNK
44 .WORD 0 ;SU#
45 .BLK 10
46 SDATA: .BYTE 5,0 ;SEND DATA TO XSCHED
47 .WORD 0
48 .WORD 0
49 .WORD 0
50
51 ;
52 ; ERROR MESSAGES
53 ERR1: .WORD ERR1L
54 ERR1T: .ASCII /SULOAD: DISK ERROR/
55
56 ERR1L = -ERR1T
57 .EVEN
58
59 ERR2: .WORD ERR2L
60 ERR2T: .ASCII /SULOAD: DMC WRITE FAILURE/
61
62 ERR2L = -ERR2T
63 .EVEN
64
65 ERR3: .WORD ERR3L
66 ERR3T: .ASCII /SULOAD: LINK INL/
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

SULOAD: M1110 27-MAR-80 13:19 PAGE 11-1
ASSEMBLY: E DATA DEFINITIONS

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

004301	117	101	104
004304	072	040	114
004307	111	116	113
004312	040	111	116
004315	114		

65 000020

ERR3L = -ERR3T
.EVEN

66

67

68

69

70

71

72 004316 000162

73 004320 000202

74 004322 000212

75 004324 000222

76 004326 000000

77

;BST FDSC OFFSET INDEX TABLE

; .WORD B.FMHR ;SEND FIRST

FDSCID: .WORD B.FOLS

.WORD B.FFSA

.WORD B.FFSB

.WORD B.FFSC

.WORD 0

;END OF TABLE

SULOAD: MACRO: M1110 27-MAR-60 13:19 PAGE: 12
GET: RECEIVE: PACKET, INITIALIZE, SEND: FILES

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
79 ; SBTTL: GET: RECEIVE: PACKET, INITIALIZE, SEND: FILES.
80 ;
81 004330 ; SULOAD:
82 004330 ; FINIT$
83 ;
84 004334 ; NXTRCV: RCVX$C, RDATA, ; GET: RECEIVE: PACKET.
85 ;
86 004342, 016767, 177610, 177574 ; MOV, RDATA+0, XMLUN
87 004350, 062767, 000001, 177565 ; ADD, #1, XMLUN
88 ;
89 004356, 116705, 177572 ; MOV, RDATA+6, R5 ; BATCH: NUMBER.
90 004362, 012704, 004316 ; MOV, #FDSCID, R4 ; FDSC: OFFSET: TABLE.
91 004366, 016703, 177564 ; MOV, RDATA+8, R3 ; R3 = SU: NUMBER.
92 ;
93 ; FIRST, LOAD: HRL: TO: SU.
94 ;
95 004372 ; CALL, LDHRL, ; LOAD: HRL.
96 ;
97 ; TOP: OF: LOOP: FOR: EACH: CONTROL: TABLE: FILE
98 004376, 012401 ; NXTFIL: MOV, (R4)+, R1 ; FDSC: OFFSET: IN: BST.
99 004400, 001534 ; BEQ, LDONE, ; ALL: FIVE: TABLES: LOADED.
100 004402, 066501, 000000 ; ADD, BSTPTR(R5), R1 ; FDSC: ADDRESS: IN: BST
101 004406, 012700, 000000 ; MOV, #FDB, R0 ; INPUT: FILE: FDB.
102 ;
103 004412 ; CALL, BLDEFL, ; BUILD: FNB: IN: FDB.
104 004416 ; OFNB$R, ; OPEN: FILE
105 004430, 103433 ; BCS, DSKERR, ; OPEN: FAILURE.
106 004432, 016002, 000010 ; MOV, F, EFBK(R0), R2 ; # OF: SECTORS: IN: FILE.
107 004436, 016003, 000012 ; MOV, F, EFBK+2(R0), R3
108 004442, 162703, 000001 ; SUB, #1, R3
109 004446, 005602 ; SBC, R2
110 004450, 071227, 000004 ; DIV, #N, BFAC, R2 ; # OF: BLOCKS.
111 004454, 001421 ; BEQ, DSKERR, ; EMPTY: FILE.
112 004456, 005703 ; TST, R3 ; NOT: MULTIPLE.
113 004460, 001017 ; BNE, DSKERR, ; OF: N, BFAC.
114 ;
115 ; TOP: OF: LOOP: FOR: EACH: BLOCK.
116 004462 ; READ$ ; READ: FIRST: BLOCK.
117 004466 ; WAIT$
118 004472, 010267, 173444 ; MOV, R2, DATBUF+2 ; STUFF: BLOCK: COUNT: IN: FIRST: BLOCK.
119 004476, 000404 ; BR, TSTRED, ; CONTINUE.
120 ;
121 004500 ; REDFIL: READ$ ; READ: NEXT: BLOCK.
122 004504 ; WAIT$
123 004510, 122767, 000000G, 177422 ; TSTRED: CMPB, #IS, SUC, IOSTAT ; SUCCESS$
124 004516, 001403 ; BEQ, DSKOK, ; YES
125 004520, 012700, 004214 ; DSKERR: MOV, #ERR1, R0 ; ERROR.
126 004524, 000514 ; BR, ERROR.
127 ;
128 004526 ; DSKOK: QIOW$S, #IO, WLB, 0, XMLUN, #EF, IO, #IOSTAT, #DATBUF, #N, EUBF>
129 004600, 122767, 000000G, 177332 ; CMPB, #IS, SUC, IOSTAT ; SUCCESS?
130 004606, 001423 ; BEQ, 1$ ; YES.
131 004610, 122767, 000000G, 177322 ; CMPB, #IE, CNR, IOSTAT ; RECOVERABLE: ERROR?
132 004616, 001443 ; BEQ, LNKIRST.
133 004620, 122767, 000000G, 177312 ; CMPB, #IE, DNR, IOSTAT
134 004626, 001437 ; BEQ, LNKIRST.
135 004630, 122767, 000000G, 177302 ; CMPB, #IE, TMO, IOSTAT
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

SULOAD: M 00-M1110 27-MAR-00 13:19 PAGE 12-1
 GET RECEI PACKET. INITIALIZE. SEND

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

136 004636 001433      BEQ.. LNKRST.
137 004640 123767 000000G 177272. CMPB. #IE.ABO.IOSTAT
138 004646 001427      BEQ.. LNKRST.
139 004650 012700 004240'      MOV. #ERR2,R0      ;ERROR.
140 004654 000440      BR      ERROR.
141
142 004656 077270      ;
143      1$: SOB. R2,REDFIL.      ;CONTINUE WITH FILE.
144      ;
145 004660      ;READ ENTIRE FILE.
146 004670 000642.      CLSFIL: CLOSE$ #FDB      ;CLOSE FILE.
147      BR      NXTFIL.      ;GET NEXT CONTROL TABLE FILE.
148      ;
149      ;
150      ; ACK SCHEDULER, ALL THE TABLES LOADED.
151 004672.      ;
152 004672.      LDONE:
153 004676 012762. 000005 000002.      CALL. GETFRE.      ;GET FREE PACKET.
154 004704 116762. 177244 000004      MOV. #5.2(R2)      ;PUT IN THE COMMAND SOURCE.
155 004712. 016762. 177240 000006      MOV. RDATA+6.4(R2)      ;...BATCH NO.
156 004720      MOV. RDATA+8.6(R2)      ;...AND SEARCH UNIT.
157 004724 000603      CALL. PUTSSQ.      ;QUEUE IT TO MSCHED.
158      BR      NKTRCV.      ;GO GET ANOTHER PACKET.
159      ;
160      ;
161      ; RECOVERABLE LINK ERROR.
162      ;
163 004726 012700 004274'      LNKRST: MOV. #ERR3,R0      ;ERROR MESSAGE.
164 004732.      CALL. COOUT.
165 004736      MKT$C. EF,IO.60.1      ;WAIT FOR OTHER END TO RECOVER
166 004744      WTSE$C. EF,IO.
167 004752. 005744      TST. -(R4)      ;BACK OFF TABLE POINTER.
168 004754 000741      BR      CLSFIL.      ;CLOSE FILE AND RESEND.
169      ;
170      ;
171      ; ERROR MESSAGE EXIT - R0:ERROR MESSAGE ADDRESS.
172      ;
173 004756      ERROR: CALL. COOUT.      ;MSG TO CONSOLE.
174 004762.      EXIT: EXIT$.
175      ;
176      ;
177      ; SEND MESSAGE TO CONSOLE.
178      ;
179 004770 012001      COOUT: MOV. (R0)+,R1      ;MSG ADDRESS AND LENGTH.
180 004772.      Q10W$. #IO.WLB,#COLUN,#EF,IO,...<R0,R1,#40>      ;MSG TO CONSOLE.
181 005040 000207      RTS. PC.
182      ;
183      ;
184      ;.END. SULOAD.
  
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

BITVAL = 000000	B.OMAP 000234	010 FA.RD = 000001	FN.SF0 000030	011 IE.ABO = ***** GX
BIT0 = 000001	B.OSPL 000316	010 FA.RWD = 004000	FN.SF1 000032	011 IE.CNR = ***** GX
BIT1 = 000002	B.OTTM 000076	010 FA.SEO = 040000	FN.SHD 000042	011 IE.DNR = ***** GX
BIT10 = 002000	B.OUQP 000056	010 FA.SHR = 000040	FO.APD = 000106	IE.TMO = ***** GX
BIT11 = 004000	B.SFDB 000010	010 FA.TMP = 000020	FO.MFY = 000002	IOSTAT 004140R
BIT12 = 010000	B.SIZE 000772	010 FA.WCK = 020000	FO.RD = 000001	IO.WLB = ***** GX
BIT13 = 020000	B.SNDP 000012	010 FA.WRT = 000002	FO.UPD = 000006	IS.SUC = ***** GX
BIT14 = 040000	B.SSO 000004	010 FDB = 000000R	FO.WRT = 000016	LDHRL = ***** GX
BIT15 = 100000	B.SSOQ 000050	010 FDSID = 004316R	F.ACTL = 000076	LDDNE 004672R
BIT2 = 000004	B.STAT 000044	010 FD.BLK = 000010	F.ALOC = 000040	LNKRST 004726R
BIT3 = 000010	B.STTE 000053	010 FD.CCL = 000002	F.BBFS = 000062	M = 000062
BIT4 = 000020	B.UDOC 000110	010 FD.COM = 020000	F.BDB = 000070	M.KTAE = 000010
BIT5 = 000040	CF.B0 = 000070	010 FD.CR = 000002	F.BGBC = 000057	M.KTEF = 000002
BIT6 = 000100	CF.B2 = 000057	FD.DIR = 000010	F.BKDN = 000026	M.KTNG = 000004
BIT7 = 000200	CF.B4 = 000066	FD.FID = 000000	003 F.BKDS = 000020	M.KTUN = 000006
BIT8 = 000400	CF.B6 = 000065	FD.FNB = 000006	003 F.BKEF = 000050	N = 000002
BIT9 = 001000	CF.DR0 = 000064	FD.FTN = 000001	F.BKPI = 000051	NB.DEV = 000200
BLDEFL = ***** G	CF.DR1 = 000063	FD.FVR = 000004	003 F.BKST = 000024	NB.DIR = 000100
BSTPTR = ***** G	CH.AND = 000001	FD.F11 = 040000	F.BKVB = 000054	NB.NAM = 000004
BS.CLS = 000002	CLSFIL 004660R	FD.INS = 000010	F.CHR = 000075	NB.SD1 = 000400
BS.DBU = 000004	COLUN = 000006	FD.ISP = 002000	F.CNTG = 000034	NB.SD2 = 001000
BS.INA = 000000	COOUT = 004770R	FD.LEN = 000010	003 F.DFNB = 000046	NB.SNM = 000040
BS.OPN = 000001	DATBUF 000140R	FD.MNT = 100000	F.DSPT = 000044	NB.STP = 000020
BS.SRC = 000003	DB.LEN = 000116	FD.OSP = 004000	F.DVNM = 000134	NB.SVR = 000010
BYTE0 = 000000	DH.BF0 000002	005 FD.PLC = 000004	F.EFBK = 000010	NB.TYP = 000002
BYTE1 = 000001	DH.BF1 000004	005 FD.PPN = 000004	F.EFN = 000050	NB.VER = 000001
BYTE2 = 000002	DH.CTL 000000	005 FD.PSE = 010000	F.EOBB = 000032	NXTFIL 004376R
BYTE3 = 000003	DH.DMC 000010	005 FD.RAH = 000001	F.ERR = 000052	NXTRCV 004334R
BYTE4 = 000004	DH.FLG 000006	005 FD.RAN = 000002	F.FACC = 000043	N.BFAC = 000004
BYTE5 = 000005	DN.DCK 000000	013 FD.REC = 000001	F.FFBY = 000014	N.BHGH = 000006
BYTE6 = 000006	DN.NTP 000004	013 FD.RUM = 000001	F.FNAM = 000110	N.BTCH = 000004
BYTE7 = 000007	DN.NXT 000006	013 FD.SD1 = 000020	F.FNB = 000102	N.BUFB = 004000
BYTE8 = 000010	DN.RTZ 000002	013 FD.SQD = 000040	F.FTYP = 000116	N.BUFW = 002000
BYTE9 = 000011	DN.SIZ 000010	013 FD.TTY = 000004	F.FVER = 000120	N.DID = 000024
BYTVAL = 000012	DPLUN = 000003	FD.WBH = 000002	F.HIBK = 000004	N.DVNM = 000032
B.BSTA 000054	010 DSKERR 004520R	FF.CHR = 000005	F.LUN = 000042	N.FID = 000000
B.CNTX 000046	010 DSKOK 004526R	FF.NV = 000003	F.MBCI = 000055	N.FNAM = 000006
B.COUP 000050	010 EF.IO = 000001	FF.POE = 000002	F.MBFC = 000056	N.FOS = 000764
B.FEMA 000132	010 ERROR 004756R	FF.RWD = 000001	F.NRBD = 000024	N.FTYP = 000014
B.FEMB 000142	010 ERR1 004214R	FF.RWC = 000006	F.NREC = 000030	N.FVER = 000016
B.FEMC 000152	010 ERR1L = 000022	FF.SPC = 000004	011 F.OVBS = 000030	N.NEXT = 000022
B.FFSA 000202	010 ERR1T = 004216R	FN.DBR = 000026	011 F.RACC = 000016	N.PKSZ = 000020
B.FFSB 000212	010 ERR2 = 004240R	FN.DBS = 000022	011 F.RATT = 000001	N.PKTS = 000043
B.FFSC 000222	010 ERR2L = 000031	FN.DHR = 000040	011 F.RCNM = 000034	N.QURY = 000031
B.FMHR 000172	010 ERR2T = 004242R	FN.EMA = 000012	011 F.RCTL = 000017	N.STAT = 000020
B.FOLS 000162	010 ERR3 004274R	FN.EMB = 000014	011 F.RSIZ = 000002	N.SUNT = 000002
B.FSAZ 000100	010 ERR3L = 000020	FN.EMC = 000016	011 F.RTYP = 000000	N.UNIT = 000034
B.FSB2 000102	010 ERR3T = 004276R	FN.FSA = 000000	011 F.SEON = 000100	PARS = 000027
B.FSC2 000104	010 EXIT = 004762R	FN.FSB = 000002	011 F.SPDV = 000072	PUTSSQ = ***** GX
B.HBLK 000120	010 FA.APD = 000100	FN.FSC = 000004	011 F.SPUN = 000074	OE.R01 = 000144
B.HDOC 000114	010 FA.CRE = 000010	FN.LG0 = 000034	011 F.STBK = 000036	O.FDSC = 000004
B.HRLP 000126	010 FA.DLK = 001000	FN.LGU = 000036	011 F.UNIT = 000136	O.NOBK = 000000
B.HRLR 000122	010 FA.ENB = 100000	FN.MFO = 000024	011 F.URBD = 000020	O.NUHL = 000002
B.HRLU 000124	010 FA.EXC = 002000	FN.MHR = 000010	011 F.VBN = 000064	O.SIZE = 000014
B.NMBR 000052	010 FA.EXT = 000004	FN.NMB = 000044	011 F.VBSZ = 000060	REDFIA 004500R
B.NORY 000232	010 FA.HSP = 000100	FN.QLS = 000006	011 GETFRE = ***** GX	R.FIX = 000001
B.OLSZ 000106	010 FA.PDS = 010000	FN.QRY = 000020		

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

SULOAD: M1110 27-MAR-80 13:19 PAGE 12-3
SYMBOL TABLE

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

R:SEQ = 000003	SR:SDR 000032	002 ST.XLT 000014	006 UN.ROT 000002	012 XHITSK = 000011
R:VAR = 000002	SR:SRC 000002	002 SULOAD 004330R	UN.SIZ 000010	012 XHLMER = 000002
R:VXB = 000006	SR:SUN 000000	002 SU.DBU = 000004	UN.SRC 000000	012 XHOTS = 000010
R:VXTN = 000002	SR:TWS 000056	002 SU.DON = 000006	UN.TYP 000001	012 XHMLUN = 004144RG
SDATA 004204R	SR:WSL 000052	002 SU.IDL = 000000	WORD0 = 000000	XMSCHE = 000000
SR:ARE 000114	002 SR.YR 000004	002 SU.LOD = 000001	WORD1 = 000002	XOTS = 000003
SR:ARS 000106	002 SR.IIN 000024	002 SU.SRC = 000002	WORD2 = 000004	XOT0 = 000001
SR:DAY 000010	002 SR.IIP 000016	002 SU.SRR = 000005	WORD3 = 000006	XSULOA = 000005
SR:DLT 000014	002 SS.FID 000002	004 SU.XPD = 000003	WORD4 = 000010	\$\$\$ = 000022R 015
SR:ECB 000047	002 SS.FNB 000010	004 S.BFHD = 000020	WORD5 = 000012	\$\$\$ARG = 000002
SR:ECH 000046	002 SS.FVR 000006	004 S.FATT = 000016	WORD6 = 000014	\$\$\$OST = 000004
SR:ECL 000050	002 SS.LEN 000012	004 S.FDB = 000140	WORD7 = 000016	\$\$\$TI = 000000
SR:FIB 000012	002 SS.STT 000000	004 S.FNAM = 000006	WORD8 = 000020	.CLOSE = 000000 G.
SR:GRE 000100	002 ST.ASZ 000020	006 S.FNB = 000036	WORD9 = 000022	.FINIT = 000000 G.
SR:GRS 000072	002 ST.BSZ 000024	006 S.FNBW = 000017	WRDVAL = 000024	.FSRCB = 000000 G.
SR:LEN 000122	002 ST.BTC 000000	006 S.FNTY = 000004	W.TSEF = 000002	.OPFNB = 000000 G.
SR:LIN 000066	002 ST.CSZ 000030	006 S.FTYP = 000002	XBATC = 000013	.READ = 000000 G.
SR:LIP 000062	002 ST.HRL 000010	006 S.HRL = 000240	XDBLOA = 000004	.WAIT = 000000 G.
SR:MON 000006	002 ST.LEN 000044	006 S.NFEN = 000020	XDBPRD = 000012	...GBL = 000000
SR:NDC 000042	002 ST.ORY 000002	006 TSTRED 004510R	XDNCHN = 000006	...PC1 = 000000R
SR:NDS 000036	002 ST.OSZ 000034	006 UN.NTP 000004	012 XFOSMR = 000007	...PC2 = 000140R
SR:NIN 000030	002 ST.SCH 000040	006 UN.NXT 000006	012 XGTSRE = 000014	...TPC = 000020
SR:NIP 000022	002 ST.UHL 000004	006		

.ABS. 000000 000
005042. 001
SRCOFF 000122 002
FDSCOF 000010 003
SUSOFF 000012 004
DHROFF 000012 005
STTOFF 000044 006
QSPLDF 000014 007
BSTOFF 000772 010
FNOFFS 000044 011
WNDOF 000010 012
DNDOF 000010 013
\$FSR1 000000 014
\$DPB\$ 000026 015
ERRORS DETECTED: 0

VIRTUAL MEMORY USED: 7159 WORDS (28 PAGES)
DYNAMIC MEMORY: 8084 WORDS (31 PAGES)
ELAPSED TIME: 00:00:47
SULOAD, SULOAD/SP=C20,1JP,M,SULOAD

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

LDHRL: M100-M1110 27-MAR-80 13:20
TABLE OF CONTENTS:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

11- 34 ASSEMBLY-TIME DATA DEFINITIONS
15- 184 BUFFER CONTROL ROUTINES

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

1      ; TITLE--LDHRL
2
3      ;
4      .MCALL FDOF$,FCSBT$,FDBDF$,FDRC$,FDBK$R
5      .MCALL FDBK$,FDOF$,FSRSZ$,FINIT$
6      .MCALL PCVX$,ALUN$,QIOW$,QIOW$,EXIT$S
7      .MCALL SDAT$,ROST$,DIR$,ASTX$S
8      .MCALL MPKT$,UTSE$C
9      .MCALL OFNB$,READ$,WAIT$,CLOSE$,WRITE$
10
11      ;
12      .GLOBL BLDEFL,BSTPTR
13
14      ; LUNS
15      DPLUN=3
16      COLUN=6
17
18      ; MISC EQUATES
19      EF,IO=1 ; I/O EVENT FLAG
20
21      ;
22      .PSECT IOCBF,ABS
23      IOST: .BLKW 2
24      FDBAD: .BLKW 1
25      EYNT: .BLKB 1
26      ATTR: .BLKB 1
27      CBLK: .BLKW 1
28      LBLK: .BLKW 1
29      CBUF: .BLKW 1
30      NXTG: .BLKW 1
31      NXTR: .BLKW 1
32      IBDB: .BLKB 1
33      LDBB: .BLKB 1
34
35      ;
36      .PSECT

```

; I/O STATUS BLOCK
 ; ADDRESS OF FDB
 ; ADDRESS OF EVENT FLAG
 ; TYPE OF I/O
 ; CURRENT LOGICAL BLOCK
 ; LAST BLOCK (IF WRAP AROUND)
 ; ADDRESS OF BUFFER CURRENTLY IN USE
 ; BDB OFFSET OF NEXT ENTRY FOR ASSIGNMENT
 ; BDB OFFSET OF NEXT ENTRY FOR I/O
 ; FILE'S FIRST BDB INDEX
 ; FILE'S LAST BDB INDEX

LDHRL: M000-M1110 27-MAR-80 13:20 PAGE 11
ASSEMBLY-TIME DATA DEFINITIONS

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
34 .SBTTL: ASSEMBLY-TIME DATA DEFINITIONS.
35 .PSECT:
36
37 FDOF$L:
38 FCSBT$
39
40
41 INPUT: FILE: FDB:
42 FDBDF$
43 FDRCSA: FD,RWM
44 FDBKSA: N,BUFB,,EF,IO,IOCB:
45 FDOFSA: DPLUN:
46
47 FRSZ$ 0
48
49 I/O CONTROL BLOCK: - HRL: FILE: INPUT:
50
51 IOCB:
52 .BLKW: 2: ; IOST: BLOCK:
53 .WORD: FDB: ; FDB: ADDRESS:
54 .BYTE: EF,IO: ; EVENT: FLAG:
55 .BYTE: BUFRD!BUFRAP: ; READ: WITH WRAP: AROUND:
56 .BLKW: 1: ; CURRENT: LOGICAL: BLOCK:
57 .BLKW: 1: ; LAST: LOGICAL: BLOCK:
58 .WORD: 0: ; ADDRESS: OF: BUFFER: IN: USE:
59 .WORD: BDB1-BDB: ; INDEX: TO: INITIAL: ASSIGN: BDB:
60 .WORD: BDB1-BDB: ; INDEX: TO: INITIAL: I/O: BDB:
61 .BYTE: BDB1-BDB: ; INDEX: TO: FILE'S: FIRST: BDB:
62 .BYTE: BDB2-BDB: ; INDEX: TO: FILE'S: LAST: BDB:
63
64 BUFFER: DEFINITION: BLOCK: ADDRESS: VECTOR:
65 BDB:
66 BDB1: .WORD: BUF1
67 BDB2: .WORD: BUF2
68
69 I/O: BUFFERS:
70
71 BUF1: .BLKW: N,BUFW:
72 BUF2: .BLKW: N,BUFW:
73
74 MISC: LOCATIONS:
75 BSTADR: .WORD: 0
76 RISAV: .WORD: 0
77
78 IOSTAT: .BLKW: 2:
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

LDHRL MACRO M1110 27-MAR-80 13:20 PAGE 12
ASSEMBLY-TIME DATA DEFINITIONS

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
79
80 010200 000021
81 010202 114 104 110
   010205 122 114 072
   010210 040 104 111
   010213 123 113 040
   010216 105 122 122
   010221 117 122
82 000021
83
84
85 010224 000030
86 010226 114 104 110
   010231 122 114 072
   010234 040 104 115
   010237 103 040 127
   010242 122 111 124
   010245 105 040 106
   010250 101 111 114
   010253 125 122 105
87 000030
88
89
90 010256 000017
91 010260 114 104 110
   010263 122 114 072
   010266 040 114 111
   010271 116 113 040
   010274 111 116 114
92 000017
93
94
```

ERROR MESSAGES
ERR1: .WORD ERR1L
ERR1T: .ASCII /LDHPL: DISK ERROR/

ERR1L=-ERR1T
.EVEN

ERR2: .WORD ERR2L
ERR2T: .ASCII /LDHRL: DMC WRITE FAILURE/

ERR2L=-ERR2T
.EVEN

ERR3: .WORD ERR3L
ERR3T: .ASCII /LDHRL: LINK INL/

ERR3L=-ERR3T
.EVEN

```

96 010300
97 010300
98 010314 016502 000000G
99 010320 005762 000122
100 010324 001002
101 010326 000167 000430
102 010332
103 010332 010267 177632
104 010336 012701 000172
105 010342 060201
106 010344 012700 000000*
107 010350
108 010354
109 010366 103436
110
111 010370 012701 000140*
112 010374
113 010400 166203 000120
114 010404 003510
115 010406 016261 000122 000010
116 010414 016261 000124 000012
117 010422
118
119
120
121 010426
122 010426
123 010432 016104 000014
124 010436 010364 000002
125 010442 000404
126
127 010444
128 010444
129 010450 016104 000014
130 010454 122767 000000G 167456
131 010462 001403
132 010464 012700 010200*
133 010470 000502
134
135 010472
136 010472
137 010542 122767 000000G 177424
138 010550 001423
139 010552 122767 000000G 177414
140 010560 001427
141 010562 122767 000000G 177404
142 010570 001423
143 010572 122767 000000G 177374
144 010580 001417
145 010602 122767 000000G 177364
146 010610 001413
147 010612 012700 010224*
148 010616 000427
149
150 010620
151 010620
152 010624 077371

LDHRL:
SAVE: R0,R1,R2,R3,R4,R5
MOV: BSTPTR(R5),R2
TST: B,HRLR(R2)
BNE: 10$
JMP: LDXIT.

10$:
MOV: R2,BSTADR
MOV: #B,FMHR,R1
ADD: R2,R1
MOV: #FDB,R0
CALL: BLDEFL
OFNB$R:
BCS: DSKERR

:
MOV: #IOCB,R1
CALL: GTBLK
SUB: B,HBLK(R2),R3
BLE: CLSFIL
MOV: B,HRLR(R2),CBLK(R1)
MOV: B,HRLW(R2),LBLK(R1)
CALL: BUFI0

:
TOP: OF LOOP FOR EACH BLOCK.

TOPLUP:
CALL: GETBUF
MOV: CBUF(R1),R4
MOV: R3,2(R4)
BR: TSTRED

:
REDFIL:
CALL: GETBUF
MOV: CBUF(R1),R4
TSTRED: CMPB: #IS,SUC,IOCB
BEQ: DSKOK
DSKERR: MOV: #ERR1,R0
BR: ERROR

:
DSKOK:
QIOW$S: #IO,ULB,0**MLUN,*EF,IO,,#IOSTAT,<R4,#N,BUFB>
CMPB: #IS,SUC,IOSTAT
BEQ: 1$
CMPB: #IE,CNR,IOSTAT
BEQ: LNKIRST
CMPB: #IE,DNR,IOSTAT
BEQ: LNKIRST
CMPB: #IE,TIO,IOSTAT
BEQ: LNKIRST
CMPB: #IE,ABO,IOSTAT
BEQ: LNKIRST
MOV: #ERR2,R0
BR: ERROR

:
1$:
CALL: RELBUF
SOB: R3,REDFIL

```

LDHRL: MACRO-M1110 27-MAR-80 13:20 PAGE 14
 ASSEMBLY-TIME DATA DEFINITIONS

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

154      ;      HAVE READ ENTIRE FILE.
155      ;
156 010626 CLSFIL: CLOSE$ #FDB      ;CLOSE FILE.
157 010636 000451 BR      LDXIT.
158      ;
159      ;      RECOVERABLE LINK ERROR
160      ;
161 010640 012700 010256 LNKIRST: MOV. #ERR3,R0      ;ERROR MESSAGE...
162 010644 CALL. COOUT.      ;
163 010650 MPKT$C EF:10,60,1      ;WAIT FOR OTHER END TO RECOVER
164 010656 WTSE$C EF:10.      ;
165 010664 CLOSE$ #FDB      ;
166 010674 000654 BR      TOPLUP.      ;CLOSE FILE AND RESEND.
167      ;
168      ;      ERROR MESSAGE EXIT -- R0:ERROR MESSAGE ADDRESS.
169      ;
170 010676 ERROR: CALL. COOUT.      ;MSG TO CONSOLE.
171 010702 EXIT: EXIT$.
172      ;
173      ;      SEND MESSAGE TO CONSOLE.
174      ;
175 010710 012001 COOUT: MOV. (R0)+,R1      ;MSG ADDRESS AND LENGTH
176 010712 Q10W$S #10,WLB,#COLUN,#EF,10,,,<R0,R1,#40> ;MSG TO CONSOLE.
177 010760 000207 RETURN.
178      ;
179 010762 LDXIT:
180 010762 000241 CLC.
181 010764 RESTOP. R0,R1,R2,P3,R4,R5
182 011000 000207 RETURN.

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

184                                     .SBTTL: BUFFER CONTROL ROUTINES.
185                                     ;
186                                     ; GET/RELEASE BUFFER.
187                                     ; THESE SUBROUTINES ARE REENTRANT AND REQUIRE THAT R1 -> DESIRED IOCB.
188                                     ;
189 011002. GETBUF:
190 011002.     SAVE: R2.
191 011004.     MOV8: NXTG(R1),R2.           ;GET OFFSET TO INTENDED BUFFER
192 011010. 116102. 000016. 000164*     BIT: #BUFLOK,BDB(R2)       ;IS NEXTG BUFFER ASSIGNABLE YET?
193 011016.     BOFF: 20$                 ;BRANCH IF IT IS.
194 011020. 105761. 000021.     TSTB: NXTR+1(R1)           ;HAS I/O BEEN STARTED ON THIS IOCB?
195 011024. 001002.     BNE: 10$          ;IF IT HAS, WE ARE I/O BOUND - WAIT
196 011026.     CALL: BUFIO.              ;IF NOT, INPUT BUFFERS NEED TO BE PRIMED
197 011032. 10$:
198 011032.     WAIT$: FDBAD(R2),EVNT(R1)   ;WAIT FOR I/O COMPLETION.
199 011050. 20$:
200
201 011050. 016261. 000164* 000014.     MOV: BDB(R2),CBUF(R1)   ;LOAD ADDRESS OF ASSIGNED BUFFER.
202 011056. 000423.     BR: BUFEXIT.
203
204 011060. RELBUF:
205 011060.     SAVE: R2.
206 011062. 116102. 000016. 000164*     MOV8: NXTG(R1),R2.       ;GET OFFSET TO INTENDED BUFFER
207 011066. 052762. 000001. 000164*     BIS: #BUFLOK,BDB(R2)     ;MARK BUFFER UNASSIGNABLE.
208 011074.     CALL: BUFIO.           ;START UP I/O IF POSSIBLE.
209 011100. 126161. 000016. 000023.     CMPB: NXTG(R1),LBDB(R1)   ;LAST BUFFER FOR THIS FILE?
210 011106. 002004.     BGE: 15$        ;RECYCLE IF YES.
211 011110. 062761. 000002. 000016.     ADD: #2,NXTG(R1)         ;SELECT NEXT BUFFER TO BE ASSIGNED.
212 011116. 000403.     BR: BUFEXIT.
213 011120. 15$:
214 011120. 116161. 000022. 000016.     MOV8: LBDB(R1),NXTG(R1)   ;SELECT FIRST BUFFER
215 011126.     BUFEXIT:
216 011126.     RESTOR: R2.
217 011130. 000207.     RETURN.

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

219
220
221
222 011132.
223 011132. 010167 177034
224 011136 011601
225 011140 116101 000020
226 011144 042761 000001 000164
227 011152. 012601
228 011154 005261 000010
229 011160 105051 000021
230 011164 126161 000020 000023
231 011172. 002004
232 011174 062761 000002 000020
233 011202. 000403
234 011204
235 011204 116161 000022 000020
236
237
238 011212.
239 011212.
240 011214 016100 000004
241 011220
242 011230
243 011240
244 011244
245 011254
246 011264
247 011266 016701 176700
248 011272.
249
250
251
252
253 011300
254 011300 016100 000004
255 011304 016003 000006
256 011310 006203
257 011312. 006203
258 011314 000207
259
260
261
262
263 000001
264 000004
265 000010
266 000020
267 000040
268 000200

;
;
; ASYNCHRONOUS EXIT ROUTINE.
;
ASTX:
MOV. R1,R1SAV. ;SAVE R1
MOV. (SP),R1 ;GET 10ST. (SAME AS IOCB) ADDRESS FROM STACK
MOV. NXTR(R1),R1 ;GET OFFSET TO I/O ACTIVE BUFFER
BIC. #BUFLOK,BDB(R1) ;UNLOCK THE BUFFER
MOV. (SP)+,R1 ;POP IOCB ADDRESS FROM STACK
INC. CBLK(R1) ;POINT TO NEXT LOGICAL BLOCK
CLRB. NXTR+1(R1) ;RESET I/O IN PROGRESS FLAG
CMPB. NXTR(R1),LBDB(R1) ;WAS THIS THE LAST BUFFER FOR FILE?
BGE. 10$ ;RECYCLE IF YES
ADD. #2,NXTR(R1) ;SELECT NEXT BUFFER FOR I/O
BR. 20$

10$:
MOV. IBDB(R1),NXTR(R1) ;NEXT I/O BUFFER IS FIRST
;
;
; START I/O ON NEXT BUFFER.
;
20$:
SAVE. R0
MOV. FDBAD(R1),R0 ;GET FDB OF COMPLETED I/O
SAVE. F,BKDS+2(R0),F,BKST(R0) ;PRESERVE ASTX ROUTINE REENTRANCY
SAVE. F,BKVB+2(R0),F,EFN(R0)
CALL. BUFIO
RESTOR. F,BKVB+2(R0),F,EFN(R0)
RESTOR. F,BKDS+2(R0),F,BKST(R0)
RESTOR. R0
MOV. R1SAV,R1
ASTX$S

;
;
; CALCULATE LAST PHYSICAL BLOCK OF FILE.
;
STBLK:
MOV. FDBAD(R1),R0 ;GET FILE'S FDB
MOV. F,HIBK+2(R0),R3 ;GET LAST ALLOCATED BLOCK
ASR. R3 ;CONVERT TO LOGICAL BLOCKS
ASR. R3 ;BY DIVIDING BY 4
RETURN.

;
;
; BUFFER CONTROL ROUTINE SYMBOLIC VARIABLES.
;
BUFLOK. =. BIT0 ;BUFFER LOCKED. CANNOT BE ASSIGNED
BUFRD. =. BIT2 ;READ OPERATIONS ON THIS IOCB
BUFWP. =. BIT3 ;WRITE OPERATIONS ON THIS IOCB
BUFRAP. =. BIT4 ;FILE WRAP AROUND IN EFFECT
BUFEOP. =. BIT5 ;LAST LOGICAL I/O BLOCK ENCOUNTERED
BUFOPN. =. BIT7 ;IOCB HAS BEEN INITIALIZED

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

270      ;      PERFORM I/O ON NEXT AVAILABLE BUFFER.
271      ;
272      ;
273      ;      R1 -> BUFFER DEFINITION BLOCK.
274      ;
275      ;      BUFIO:
276      ;      SAVE      R0,R2,R3,R4
277      ;      BITB      #BUFOPN,ATTR(R1)      ;HAS IOCB BEEN INITIALIZED YET?
278      ;      BON      BUFIO      ;IF SO, SET UP I/O OPERATION
279      ;      TST      CBLK(R1)      ;HAS LOGICAL START OF FILE BEEN SPECIFIED?
280      ;      BGT      10$      ;BRANCH IF IT HAS
281      ;      MOV      #1,CBLK(R1)      ;SET START AT BEGINNING OF FILE
282      ;      10$:
283      ;      TST      LBLK(R1)      ;HAS LOGICAL END BEEN SPECIFIED?
284      ;      BGT      20$      ;BRANCH IF IT HAS
285      ;      BITB      #BUFRAP,ATTR(R1)      ;HAS WRAP AROUND BEEN SPECIFIED?
286      ;      BON      20$      ;BRANCH IF IT HAS
287      ;      CALL      GTBLK      ;CALCULATE LOGICAL BLOCK SIZE OF FILE
288      ;      MOV      R3,LBLK(R1)      ;SET UP LOGICAL BLOCK TO STOP I/O
289      ;      20$:
290      ;      BITB      #BUFRD,ATTR(R1)      ;IS THIS IOCB FOR READ OPERATIONS?
291      ;      BOFF      30$      ;BRANCH IF NOT
292      ;      MOV      IBDB(R1),R2      ;GET OFFSET TO FIRST BUFFER
293      ;      25$:
294      ;      INC      BDB(R2)      ;MARK BUFFER UNASSIGNABLE
295      ;      ADD      #2,R2      ;STEP TO NEXT BUFFER
296      ;      CMPB      R2,LBDB(R1)      ;LAST BUFFER BEEN MARKED?
297      ;      BLE      30$      ;IF NOT, GO TO MARK IT
298      ;
299      ;      FDBK$R      FDBAD(R1),...ASTX      ;DEFINE AST EXIT
300      ;      BISB      #BUFOPN,ATTR(R1)      ;SET IOCB INITIALIZED FLAG
301      ;
302      ;      SET UP I/O OPERATION.
303      ;
304      ;      BUFQIO:
305      ;      BITB      #BUFEOF,ATTR(R1)      ;HAS FILE'S LOGICAL EOF ALREADY BEEN REACHED?
306      ;      BON      BUFQIO      ;IF SO, EXIT
307      ;      TSTB      NXTR+1(R1)      ;IS I/O ALREADY IN PROGRESS ON THIS IOCB?
308      ;      BNE      BUFQIO      ;EXIT IF SO
309      ;      MOV      NXTR(R1),R2      ;GET OFFSET TO NEXT BUFFER FOR I/O
310      ;      BIT      #BUFLOK,BDB(R2)      ;IS BUFFER AVAILABLE FOR I/O?
311      ;      BOFF      BUFQIO      ;BRANCH IF NOT
312      ;      MOV      BDB(R2),R3      ;GET BUFFER ADDRESS
313      ;      BIT      #BUFLOK,R3      ;CLEAR LOCK FLAG
314      ;      FDBK$R      FDBAD(R1),R3      ;DEFINE BUFFER IN THE FDB
315      ;      FDBK$R      ...,EVENT(R1),R1      ;DEFINE EVENT FLAG AND IOST BLOCK

```


Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

317      ; DO THE APPROPRIATE I/O OPERATION
318      ;
319      10$:
320      MOV LBLK(R1),R3      ;GET LAST LOGICAL BLOCK
321      INCB NXTG+1(R1)     ;SET LOGICAL BLOCK INDICATOR
322
323      20$:
324      CMP CBLK(R1),R3     ;COMPARE CURRENT WITH LAST
325      BLT 50$             ;DO I/O - NOT LAST BLOCK
326      BEQ 40$             ;DO I/O - TEST FOR LAST BLOCK
327
328      ;
329      BITB #BUFRP,ATTR(R1) ;LAST HIGH - FILE WRAP AROUND?
330      BOFF BUFI0X          ;HAVE ALREADY REACHED END OF FILE
331      TSTB NXTG+1(R1)     ;LOGICAL BLOCK INDICATOR SET?
332      BNE 30$             ;BRANCH IF YES
333      MOV #1,CBLK(R1)     ;WRAP AROUND TO START OF FILE
334      BR 10$              ;RETEST FOR LOGICAL EOF
335
336      30$:
337      CALL GTBLK          ;CALCULATE LAST PHYSICAL BLOCK IN FILE
338      CLRB NXTG+1(R1)     ;RESET LOGICAL BLOCK INDICATOR
339      BR 20$              ;RETEST FOR PHYSICAL END OF FILE
340
341      40$:
342      TSTB NXTG+1(R1)     ;WHICH END OF FILE IS BEING TESTED?
343      BEQ 60$             ;BRANCH IF PHYSICAL EOF
344      BISB #BUFE0F,ATTR(R1) ;SET LOGICAL EOF REACHED INDICATOR
345
346      50$:
347      CLRB NXTG+1(R1)     ;RESET LOGICAL BLOCK INDICATOR
348
349      ;
350      ; CALCULATE CURRENT VIRTUAL BLOCK FROM CBLK FIELD
351      ;
352      60$:
353      MOV CBLK(R1),R3     ;GET CURRENT LOGICAL BLOCK
354      DEC R3
355      ASL R3
356      ASL R3
357      INC R3
358      MOV FDBAD(R1),R0    ;VB = (CBLK-1)*4+1
359      MOV R3,F.BKVB+2(R0) ;GET FDB ADDRESS
360      INCB NXTR+1(R1)     ;INITIALIZE VIRTUAL BLOCK ADDRESS IN FDB
361      BITB #BUFRD,ATTR(R1) ;SET I/O IN PROGRESS
362      BOFF 70$            ;READ SPECIFIED?
363      READ$              ;BRANCH IF NOT
364      BR 80$             ;PERFORM THE READ
365
366      70$:
367      BITB #BUFW,ATTR(R1) ;WAS WRITE SPECIFIED?
368      BOFF BUFI0X         ;BRANCH IF NOT
369      WRITE$              ;PERFORM THE WRITE
370
371      80$:
372      BCC BUFI0X          ;EXIT IF NO ERROR

```

LDHRL: M1110 27-MAR-80 13:20 PAGE 19
BUFFER CONTROL ROUTINES

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
366      ;      ERROR EXIT ON FCS DIRECTIVE
367      ;
368 011722      ;      ERRX:
369 011722 126027 000052 000000G CMPB F:ERR(R0),#IE,EOF      ;WAS THIS READ PAST LAST BLOCK
370 011730 001006      BNE 10$      ;IF NOT, A TRUE ERROR
371 011732 152761 000040 000007 B1SB #BUFEOF,ATTR(R1)      ;SET END OF FILE FLAG
372 011740 105061 000021      CLRB NXTR+1(R1)      ;RESET I/O IN PROGRESS FLAG
373 011744 000412      BR BUFIOX      ;EXIT ROUTINE
374 011746      10$:
375 011746 016067 000052 176220 MOV F:ERR(R0),IOSTAT
376 011754 012700 010200 MOV #ERR1,R0
377 011760      CALL COOUT
378 011764      EXIT$S
379      ;
380      ;      RETURN POINT FOR BUFIO SUBROUTINE
381      ;
382 011772      BUFIOX:
383 011772      RESTOR R0,R2,R3,R4
384 012002 000207      RETURN
385      000001      .END
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

ASTX: 011132R	B.FEMB 000142	010 ERROR 010676R	FF.NV = 000003	F.MBCT = 000054
ATTR: 000007	014 B.FEMC 000152	010 ERRX 011722R	FF.POE = 000002	F.MBCI = 000055
BDB: 000164R	B.FFSH 000202	010 ERR1 010200R	FF.RWD = 000001	F.MBFG = 000056
BDB1: 000164R	B.FFSB 000212	010 ERPIL = 000021	FF.RWF = 000006	F.NRBD = 000024
BDB2: 000166R	B.FFSC 000222	010 ERRIT 010202R	FF.SPC = 000004	F.NREC = 000030
BITYAL = 000000	B.FMHR 000172	010 ERR2 010224R	FN.DBR = 000026	011 F.OVBS = 000030
BIT0 = 000001	B.FOLS 000162	010 ERR2L = 000030	FN.DBS = 000022	011 F.RACC = 000016
BIT1 = 000002	B.FSAZ 000100	010 ERR2T 010226R	FN.DHR = 000040	011 F.PATT = 000001
BIT10 = 000000	B.FSBZ 000102	010 ERR3 010256R	FN.EMA = 000012	011 F.RCNI = 000034
BIT11 = 000000	B.FSCZ 000104	010 ERR3L = 000017	FN.EMB = 000014	011 F.PCTL = 000017
BIT12 = 010000	B.HBLK 000120	010 ERR3T 010260R	FN.ENC = 000016	011 F.RSIZ = 000002
BIT13 = 020000	B.HDOC 000114	010 EVNT 000006	014 FN.FSA 000000	011 F.RTYP = 000000
BIT14 = 040000	B.HRLP 000126	010 EXIT 010702R	FN.FSB = 000002	011 F.SEQH = 000100
BIT15 = 100000	B.HRLR 000122	010 FA.APD = 000100	FN.FSC = 000004	011 F.SPIV = 000072
BIT2 = 000004	B.HRLW 000124	010 FA.CRE = 000010	FN.LGQ = 000034	011 F.SPUH = 000074
BIT3 = 000010	B.NMBR 000052	010 FA.DLK = 001000	FN.LGU = 000036	011 F.STBK = 000036
BIT4 = 000020	B.NORY 000232	010 FA.ENB = 100000	FN.MFO = 000024	011 F.UNIF = 000136
BIT5 = 000040	B.OLSZ 000106	010 FA.EXC = 002000	FN.NHR = 000010	011 F.URBD = 000020
BIT6 = 000100	B.QMAP 000234	010 FA.EXT = 000004	FN.NMB = 000044	011 F.VBN = 000064
BIT7 = 000200	B.OSPL 000316	010 FA.NSP = 000100	FN.OLS = 000006	011 F.VBSZ = 000060
BIT8 = 000400	B.OTTM 000076	010 FA.POS = 010000	FN.QRY = 000020	011 GETBUF = 011002R
BIT9 = 001000	B.OUQP 000056	010 FA.PD = 000001	FN.SFO = 000030	011 GETBLK = 011300R
RLDEFL = 000000 G	B.SFDB 000010	010 FA.RWD = 004000	FN.SFI = 000032	011 IBDB = 000022 014
BSTADR 010170R	B.SIZE 000772	010 FA.SEO = 004000	FN.SHD = 000042	011 IE.ABO = 000000 GX
BSTPTR = 000000 G	B.SNDP 000012	010 FA.SHR = 000040	FO.APD = 000106	IE.CNR = 000000 GX
BS.CLS = 000002	B.SSQ 000004	010 FA.TMP = 000020	FO.HFY = 000002	IE.DNR = 000000 GX
BS.DBU = 000004	B.SSQF 000000	010 FA.UCK = 020000	FO.RD = 000001	IE.EOF = 000000 GX
BS.INA = 000000	B.STAT 000044	010 FA.URT = 000002	FO.UPD = 000006	IE.TMO = 000000 GX
DS.OPN = 000001	B.STTE 000053	010 FDB = 000000R	FO.WRI = 000016	IOCB 000140R
DS.SRC = 000003	B.UDOC 000110	010 FDBAD = 000004	014 F.ACTL = 000076	IOCT 000000 014
BUFEOF = 000040	CBUL 000010	014 FD.BLK = 000010	F.ALOC = 000040	IOSTAT 010174R
BUFIO 011316R	CBUF 000014	014 FD.CCL = 000002	F.BBFS = 000062	IO.WLB = 000000 GX
BUFI0X 011772R	CF.B0 = 000070	FD.COM = 020000	F.BDB = 000070	IS.SUC = 000000 GX
BUFL0K = 000001	CF.B2 = 000067	FD.CR = 000002	F.BGBC = 000057	LBDB 000023 014
BUFOFN = 000200	CF.B4 = 000066	FD.DIR = 000010	F.BKDN = 000026	LBKL 000012 014
BUFOIO 011452R	CF.B6 = 000065	FD.FID = 000000	F.BKDS = 000020	LDHRL 010300RG
BUFRAP = 000020	CF.DR0 = 000064	FD.FNB = 000006	003 F.BKEF = 000050	LXIT 010762R
BUFRD = 000004	CF.DP1 = 000063	FD.FTN = 000001	003 F.BKP1 = 000051	LNKRST 010640R
BUFRW = 000010	CH.AND = 000001	FD.FVR = 000004	003 F.BKST = 000024	M = 000062
BUFXIT 011126R	CL.FIL 010626R	FD.F11 = 040000	F.BKVB = 000064	M.KTAE = 000010
BUF1 000170R	CULUN = 000006	FD.INS = 000010	F.CHR = 000075	M.KTEP = 000002
BUF2 000170R	COOUT 010710R	FD.ISP = 002000	F.CNTG = 000034	M.KTHG = 000004
BYTE0 = 000000	DBSLEN = 000116	FD.LEN = 000010	003 F.DFNB = 000046	M.KTUN = 000006
BYTE1 = 000001	DH.BF0 000002	005 FD.MNT = 100000	F.DSPT = 000044	N = 000002
BYTE2 = 000002	DH.BF1 000004	005 FD.CSP = 004000	F.DVNM = 000134	NR.DEV = 000200
BYTE3 = 000003	DH.CTL 000000	005 FD.PLC = 000004	F.EFBK = 000040	NR.DTR = 000100
BYTE4 = 000004	DH.DMC 000010	005 FD.PRN = 000004	F.EFN = 000050	NR.NAM = 000004
BYTE5 = 000005	DH.FLG 000006	005 FD.PSE = 010000	F.EQBB = 000032	NR.SD1 = 000400
BYTE6 = 000006	DN.DCK 000000	013 FD.RAH = 000001	F.ERR = 000052	NR.SD2 = 001000
BYTE7 = 000007	DN.NTP 000004	013 FD.RAN = 000002	F.FACC = 000043	NR.SNM = 000040
BYTE8 = 000010	DN.NXT 000006	013 FD.REC = 000001	F.FFBY = 000014	NR.STP = 000020
BYTE9 = 000011	DN.ROT 000002	013 FD.RWM = 000001	F.FNAM = 000110	NR.SVR = 000010
BYTVAL = 000012	DN.STZ 000010	013 FD.SDI = 000020	F.FNB = 000102	NR.TYP = 000002
B.BSTA 000054	010 DPLUN = 000003	FD.SOD = 000040	F.FTYP = 000116	NR.VPR = 000001
B.CNTX 000046	010 DSKERR 010464R	FD.TTY = 000004	F.FVER = 000120	NR.XTGT = 000016
B.CQUO 000060	010 DSKOK 010472R	FD.WBH = 000002	F.HIBK = 000004	NR.XTR = 000020 014
B.FEMA 000132	010 EF.IO = 000001	FF.CHR = 000005	F.LUN = 000042	N.BFAC = 000004

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

LDHRL: M1110 27-MAR-80 13:20 PAGE:19-2.
SYMBOL: TA

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

N.BHCH=000006	R.VAR=000002	SR.IIP=000016	002.S.FNAM=000006	XBATCH=000013
N.BTCH=000004	RISAV=010172R	SS.FID=000002	004.S.FNB=000036	XDBLOA=000004
N.BUFB=004000	SR.ARE 000114	002.SS.FNB=000010	004.S.FNBW=000017	XDBPRO=000012
N.BUFW=002000	SR.ARS 000106	002.SS.FVR=000006	004.S.FNTY=000004	XDMCIN=000006
N.DID=000024	SR.DAY 000010	002.SS.LEN=000012	004.S.FTYP=000002	XFOSMR=000007
N.DVNM=000032	SR.DLT 000014	002.SS.STT=000000	004.S.HRL=000240	XGTSRE=000014
N.FID=000000	SR.ECB 000047	002.ST.ASZ=000020	006.S.HFEN=000020	XHITSK=000011
N.FNAM=000006	SR.ECH 000046	002.ST.BSZ=000024	006.TOPUP=010426R	XHLMER=000002
N.FOS=000764	SR.ECL 000050	002.ST.BTC=000000	006.TSTRED=010454R	XHOTS=000010
N.FLYP=000014	SR.FIB 000012	002.ST.CSZ=000030	006.WN.NTP=000004	012.XMLUN=000000 GX
N.FYER=000016	SR.GRE 000100	002.ST.HRL=000010	006.WN.NXT=000006	012.XMSCHE=000000
N.NEXT=000022	SR.GRS 000072	002.ST.LEN=000044	006.WN.ROT=000002	012.XOTS=000003
N.PKSZ=000020	SR.LEN 000122	002.ST.ORY=000002	006.WN.SIZ=000010	012.XOT0=000001
N.PKTS=000043	SR.LIN 000066	002.ST.QSZ=000034	006.WN.SRC=000000	012.XSULO=000005
N.QURY=000031	SR.LIP 000062	002.ST.SCH=000040	006.WN.TYP=000001	012.XT00=000012R 016
N.STAT=000020	SR.MON 000006	002.ST.UHL=000004	006.WORD0=000000	\$\$\$ARG=000002
N.SUNT=000002	SR.NDC 000042	002.ST.XLT=000014	006.WORD1=000002	\$\$\$OST=000004
N.SUNT=000034	SR.NDS 000036	002.SU.DBU=000004	WORD2=000004	.CLOSE=000000 G.
PAR\$\$\$=000061	SR.NIN 000030	002.SU.DON=000006	WORD3=000006	.FSRCH=000000 G.
QER01=000144	SR.NIP 000022	002.SU.IDL=000000	WORD4=000010	.OPFNB=000000 G.
Q.FDSC=000004	007.SR.SDB 000032	002.SU.LOD=000001	WORD5=000012	.READ=000000 G.
Q.NBK=000000	007.SR.SRC 000002	002.SU.SRC=000002	WORD6=000014	.WAIT=000000 G.
Q.NUHL=000002	007.SR.SUN 000000	002.SU.SRR=000005	WORD7=000016	.WRITE=000000 G.
Q.SIZE=000014	007.SR.TWS 000056	002.SU.XPD=000003	WORD8=000020	...GBL=000000
REDFIL=010444R	SR.WSL 000052	002.S.BFHD=000020	WORD9=000022	...PC1=000000R
RELBUF=011060R	SR.YR 000004	002.S.FATT=000016	WRDVAL=000024	...PC2=000140R
R.FIX=000001	SR.IIN 000024	002.S.FDB=000140	W.TSEF=000002	...TPC=000020
R.SEQ=000003				

.ABS: 000000 000
012004 001
SRCOFF 000122 002
FDSCOF 000010 003
SUSOFF 000012 004
DHROFF 000012 005
STTOFF 000044 006
QSPLOF 000014 007
BSTOFF 000772 010
FNDOFFS 000044 011
WNOFF 000010 012
DNDOFF 000010 013
TOCROF 000024 014
\$\$\$SR1 000000 015
\$DPB\$\$ 000016 016
ERRORS DETECTED: 0

VIRTUAL MEMORY USED: 7245 WORDS (29 PAGES)
DYNAMIC MEMORY: 8084 WORDS (31 PAGES)
ELAPSED TIME: 00:00:55
LDHRL: LDHRL/SP=C20.13P.M.LDHPL

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

HRLMRG- M1110 27-MAR-80 13:29
TABLE OF CONTENTS

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

11-	21	HRLMRG-MAIN-ROUTINE
12-	71	HLMERG- MERGE UHL COMMAND
16-	218	HLTERM- TERMINATE HRL PROCESSING FOR THIS BATCH
17-	226	HLABRT- ABORT HRL PROCESSING FOR BATCH
18-	246	HLPROB- PROBE UHL SIZE SUBROUTINE
20-	322	LOCATE BATCH TABLE AND QUERY SPOOL FILE SUBROUTINE
21-	357	INITIALIZE HRL MERGE FILE SUBROUTINE
23-	456	START UP UHL FILE SUBROUTINE (ULINIT)
24-	495	GET NEXT HRL ENTRY ROUTINE (HGET)
25-	535	GET NEXT UHL ENTRY ROUTINE (UGET)
26-	577	OUTPUT AN HRL ENTRY SUBROUTINE (HPUT)
27-	623	BUFFER CONTROL ROUTINES
32-	824	ERROR HANDLING ROUTINE
33-	876	DATA STORAGE AND SYMBOLIC VARIABLES
34-	934	FILE STRUCTURES

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

21      .SBTTL: HRLMRG: MAIN ROUTINE.
22 000000 .PSECT:
23 000000 HRLMRG:
24 000000 FINIT$
25
26
27
28 000004
29 000004
30 000012 103003
31 000014
32 000020 000456
33
34
35 000022
36 000022
37 000026 103453
38 000030 116702 004337
39 000034 100410
40 000036 020227 000004
41 000042 002005
42 000044 006302
43
44
45
46 000046
47 000052 103020
48 000054 000440
49 000056
50 000056 010267 004316
51 000062
52 000102 000425
53
54
55 000104
56 000104 000164
57 000106 000626
58 000110 000724
59 000112 000642
60 000114
61 000114 112767 000002 004250
62 000122
63 000126 016762 004240 000002
64 000134 016762 004234 000004
65 000142 016762 004230 000006
66 000150
67 000154 000713
68 000156
69 000156

      .SBTTL: HRLMRG: MAIN ROUTINE.
      .PSECT:
HRLMRG:
      FINIT$
      :
      : GET COMMAND PACKET FROM MSCHED.
GETCMD:
      RCVX$C: .RCVB: ;GET COMMAND DATA.
      BCC: 10$ ;BRANCH IF RECEIVED OK.
      CALL: DIRERR: ;MSGOUT - DIRECTIVE ERROR.
      BR: PGMXIT: ;EXIT PROGRAM.
      :
      : INTERPRET COMMAND - LOCATE BATCH AND QUERY
      10$:
      CALL: LOCQRY: ;GET CORRECT BST AND QID.
      BCS: PGMXIT: ;BRANCH IF FAILURE.
      MOV: CMDX,R2: ;GET COMMAND INDEX.
      BMI: 25$ ;BRANCH INVALID INDEX.
      CMP: R2,*(CMDLST-CMDTAB)/2: ;INDEX IN RANGE?
      BGE: 25$ ;BRANCH IF OUT OF RANGE.
      ASL: R2: ;SUBROUTINE TABLE OFFSET.
      :
      : EXECUTE COMMAND.
      :
      CALL: @CMDTAB(R2)
      BCC: CMDLST: ;BRANCH TO ACKNOWLEDGE SCHEDULER.
      BR: PGMXIT: ;BRANCH IF COMMAND FAILURE.
      :
      25$:
      MOV: R2,PAR1
      MOUT$: *MSG3,*MSGPAR: ;STORE COMMAND CODE RECEIVED FOR MSGOUT.
      BR: PGMXIT: ;INVALID COMMAND RECEIVED.
      :
      : COMMAND PROCESSING ROUTINE LIST.
CMDTAB:
      .WORD: HLMRG: ;MERGE UHL ROUTINE.
      .WORD: HLTERM: ;TERMINATE HRL.
      .WORD: HLPROB: ;PROBE UHL SIZE.
      .WORD: HLABRT: ;ABORT HRL PROCESSING.
      :
      CMDLST:
      MOV: *HLMRG,PGMID
      CALL: GETFRE: ;PROGRAM SOURCE = HRLMRG.
      MOV: PGMID,2(R2) ;GET SSO PACKET - RETURNED IN R2.
      MOV: BCHNO,4(R2) ;MOVE IN-PROG ID AND ACK CODE.
      MOV: ORYID,6(R2) ;MOVE IN-BATCH ID.
      CALL: PUTSSO: ;MOVE IN-QUERY ID.
      BR: GETCMD: ;CHAIN SSO TO MSCHED.
      :
      PGMXIT:
      EXIT$: ;CHECK FOR NEW COMMAND PACKET.

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

71      ; SBTTL - HLMERG - MERGE UHL COMMAND.
72      ;
73      HLMERG:
74      TST     NBUHL      ; DOES CURRENT QID HAVE UHL SUBFILE?
75      BEQ     HLMERX     ; IF NOT, NOTHING TO DO (C IS CLEARED)
76      CALL    HINIT      ; INITIALIZE HRL FILE
77      BCS     HLMERX     ; OPEN FAILURE ON HRL FILE
78      20$:    CALL    ULINIT ; START UP INPUT ON UHL SUBFILE
79      BCS     HLMERX     ; OPEN FAILURE ON UHL
80      ;
81      ; OPEN HRL MERGE FILE -- PRIME ITS INPUT BUFFERS.
82      ;
83      ;
84      30$:    CALL    HGET      ; GET NEXT HRL ENTRY FROM OLD MERGE FILE
85      ;
86      40$:    CALL    UGET      ; GET NEXT UHL ENTRY
87      ;
88      ; COMPARE UHL AGAINST INPUT HRL
89      ;
90      50$:    MOV     #UDOC,R3 ; SET POINTER TO UHL ENTRY
91      MOV     HD0C,R4        ; SET POINTER TO HRL ENTRY
92      MOV     #3,R5         ; LOAD DOCUMENT ID WORD LENGTH
93      55$:    CMP     (R3)+,(R4)+ ; COMPARE A DOCUMENT ID WORD
94      BLT     70$          ; UHL ENTRY IS LOW
95      BGT     80$          ; HRL ENTRY IS LOW
96      SOB     R5,55$       ; CHECK NEXT WORD
97      ;
98      ; MATCHED UHL, HRL DOCUMENT IDS
99      ;
100     ;
101     ;
102     TST     EDHRL      ; END OF OLD MERGE FILE
103     BEQ     60$        ; BRANCH IF NOT
104     MOV     ED0FLG,R2  ; LOAD END OF DATA SENTINEL
105     CLR     R3         ; IMMEDIATE ENTRY
106     CALL    HPUT      ; OUTPUT SENTINEL
107     BR      90$        ; CLEANUP MERGE COMMAND
108     60$:    CALL    MRGDEQ ; PROCESS MATCHED ENTRIES
109     BR      30$        ; GET NEXT HRL AND UHL ENTRIES
110     ;
111     ; UHL ENTRY IS LOW
112     ;
113     70$:    CALL    MRGDLT ; TRANSFER OLD UHL ENTRY
114     BR      40$        ; GET NEXT UHL ENTRY
115     ;
116     ; HRL ENTRY IS LOW
117     ;
118     80$:    CALL    MRGDGT ; TRANSFER OLD HRL ENTRY
119     CALL    HGET      ; GET NEXT HRL ENTRY
120     BR      50$        ; GO TO COMPARE CYCLE
121     90$:    ;
  
```


HRLMRG- M 00-M1110 27-MAR-80 13:29 PAGE 13
HLMERG- - PAGE UHL COMMAND

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
123      ;      END-OF-MERGE-CLEANUP.
124 000312.      30$:
125 000312. 012701 004520*      MOV. #IOCB1,R1      ;LOAD-THE-UHL-SUBFILE-IOCB.
126 000316      CALL. RELBUF.      ;RELEASE-LAST-BUFFER
127 000322. 142761 000240 000007      BICB. #BUFOPN!BUFE0F,ATTR(R1) ;RESET-THE-IOCB.
128 000330      CLOSE$ FDBAD(R1)      ;CLOSE-THE-SPOOL-FILE-----
129      ;
130 000340 012701 004544*      MOV. #IOCB2,R1      ;LOAD-THE-HRL-INPUT-FILE-IOCB.
131 000344      CALL. RELBUF.      ;RELEASE-LAST-BUFFER
132 000350 142761 000240 000007      BICB. #BUFOPN!BUFE0F,ATTR(R1) ;RESET-THE-IOCB.
133      ;
134 000356 012701 004570*      MOV. #IOCB3,R1      ;LOAD-THE-HRL-OUTPUT-FILE-IOCB.
135 000362.      CALL. RELBUF.      ;FORCE-LAST-BUFFER-TO-BE-OUTPUT.
136 000366      WAIT$ FDBAD(R1),EVNT(R1) ;MAKE-SURE-ALL-WRITE-BEHIND-COMPLETE.
137 000404 142761 000240 000007      BICB. #BUFOPN!BUFE0F,ATTR(R1) ;RESET-THE-IOCB.
138 000412.      CLOSE$      ;CLOSE-THE-HRLMRG-FILE.
139      ;
140 000416 016702. 004002      MOV. BSTADR,P2.      ;GET-BATCH-STATUS-TABLE.
141 000422. 016262. 000124 000122.      MOV. B:HRLW(R2),B:HRLR(R2) ;SET-UP-NEW-INITIAL-READ-BLOCK.
142 000430 016162. 000010 000124      MOV. CBLK(R1),B:HRLW(R2) ;SET-UP-NEW-INITIAL-WRITE-BLOCK.
143      ;
144      ;
145 000436      HLMERX: MERGE-COMMAND-EXIT.
146 000436 000207      RETURN.
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

148      ;
149      ;
150      ; MATCHED DOCUMENT ID PROCESSING SUBROUTINE
151      ;
152      ; MRGDEQ:
153      BIT    #BIT0,R4      ; ODD NUMBER OF EXISTING QIDS?
154      BON    10$          ; IF SO, PAD BYTE NOT AVAILABLE
155      MOVB   (R4)+,R3      ; PICK UP QUERY COUNT
156      BIC    #*0177400,R3 ; CLEAR HIGH ORDER BITS
157      ADD    R3,R4         ; POINT TO PAD BYTE
158      MOVB   QRYID,R4      ; STORE QUERY ID INTO PREVIOUS PAD BYTE
159      MOV    HD0C,R2       ; GET START OF ENTRY
160      INCB   6(R2)         ; BUMP COUNT OF QIDS
161      CALL   HRLNTH        ; CALCULATE HRL ENTRY WORD LENGTH
162      CALL   HPUT          ; TRANSFER MERGED ENTRY
163      BR     30$          ; EXIT TO GET NEXT UHL AND HRL ENTRIES
164      ;
165      ; PREVIOUS QUERY COUNT WAS ODD -- THIS MEANS THAT THE MERGED ENTRY
166      ; IS ONE WORD LONGER THAN THE OLD ENTRY. WE TRANSFER THE ENTRY
167      ; IN TWO HPUT CALLS. THE QID COUNT IS BUMPED (IN THE HRL INPUT BUFFER)
168      ; AND THE FIRST HPUT CALL TRANSFERS ALL EXCEPT THE NEW LAST WORD DIRECTLY
169      ; FROM THE INPUT BUFFER. THE SECOND HPUT CALL IS AN IMMEDIATE TRANSFER
170      ; OF THE CURRENT QID (I.E., QRYID LOADED INTO THE LOW ORDER BYTE OF R3).
171      ; THERE IS, HOWEVER, ONE PITFALL TO BE AVOIDED. IF THE OLD ENTRY WOULD
172      ; HAVE EXACTLY FIT THE REMAINING SPACE IN THE MRG OUTPUT BUFFER, TO
173      ; TRANSFER THE ENTRY IN TWO HPUT CALLS WOULD SPLIT IT ACROSS BLOCK BOUNDARIES.
174      ; TO MAKE SURE THAT THIS DOES NOT HAPPEN, SCOUNT (THE AMOUNT OF SPACE REMAINING
175      ; IN THE OUTPUT BUFFER) IS DECREMENTED BEFORE THE FIRST HPUT CALL.
176      ;
177      ; 10$:
178      MOV    HD0C,R2       ; GET START OF DOCUMENT
179      CALL   HRLNTH        ; CALCULATE WORD LENGTH OF OLD ENTRY
180      INCB   6(R2)         ; BUMP QID COUNT
181      DEC    SCOUNT        ; ALLOCATE POTENTIAL SPACE FOR 2ND HPUT
182      CALL   HPUT          ; MOVE FIRST SEGMENT OF MERGED ENTRY
183      INC    SCOUNT        ; CORRECT THE SPACE COUNT
184      MOV    QRYID,R2      ; SET UP SECOND SEGMENT OF MERGED ENTRY
185      CLR    R3            ; IMMEDIATE ENTRY TRANSFER
186      CALL   HPUT          ; MOVE SECOND SEGMENT
187      ;
188      ; 30$:
189      RETURN

```

HRLMRG: M1110 27-MAR-80 13:29 PAGE: 15
HLMRG: - UHL COMMAND

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
189      : TRANSFER OLD UHL SUBROUTINE.
190      :
191      : MRGDLT:
192 000550      012703 004466      MOV.  #UDOC,R2.
193 000554      116767 003616 003713  MOV.  QRYID,UDOC+7
194 000562      012703 000004      MOV.  #4,R3
195 000566      : CALL.  HPUT
196 000572 000207      : RETURN.
197      :
198      :
199      : TRANSFER OLD HRL SUBROUTINE.
200      :
201      : MRGDGT:
202 000574      016702 003676      MOV.  HDOC,R2.
203 000600      : CALL.  HRLNTH.
204 000604      : CALL.  HPUT
205 000610 000207      : RETURN.
206      :
207      :
208      : CALCULATE WORD SIZE OF (MERGED) HRL ENTRY SUBROUTINE.
209      : (R2) = ADDRESS OF START WORD OF ENTRY.
210      : ((R2)+6) = NUMBER OF QUERY IDS IN THE ENTRY.
211      :
212      : HRLNTH:
213 000612      116203 000006      MOV.  6(R2),R3      ;GET QID COUNT.
214 000616      062703 000010      ADD.  #8,R3      ;ALLOW FOR DOC ID, COUNT, AND PAD
215 000622      006203      ASR.  R3      ;CONVERT TO WORD.
216 000624 000207      : RETURN.
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

HRLMRG- MACRO-M1110 27-MAR-80 13:29 PAGE 16
HLTERM- - TERMINATE HRL PROCESSING FOR THIS BATCH

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

218.				.SBTTL- HLTERM- - TERMINATE HRL PROCESSING FOR THIS BATCH.
219				:
220 000626			HLTERM:	
221 000626	016703	003572	MOV.	BSTADR,R3
222 000632	005063	000124	CLR.	B,HRLW(R3)
223 000636	000241		CLC.	
224 000640	000207		RETURN.	

:GET CURRENT BATCH STATUS TABLE.
:RESET HRL FILE INITIALIZED FLAG.
:SET NORMAL RETURN CODE.

Approved For Release 2005/07/21 : CIA-RDP85-00514R000100030001-3

```

226                                     .SBTTL- HLABRT-- ABORT HRL PROCESSING FOR BATCH.
227
228 000642:                                     ;
; HLABRT:
229 000642:      MOV     BSTADR,R3                ;GET CURRENT BATCH STATUS TABLE.
230 000646:      TST     B,HRLW(R3)                  ;HAS HRL MRG BEEN INITIALIZED.
231 000652:      BEQ     20$                          ;EXIT IF SO.
232 000654:      INC     ABRTFL                        ;SET ABORT FLAG.
233 000660:      CALL    HLINIT                       ;INITIALIZE HRL FILE.
234 000664:      MOV     F,HIBK(P0),R2               ;GET ORIGINAL HRL FILE ALLOCATION.
235 000670:      ASR     R2                           ;CONVERT TO LOGICAL BLOCKS.
236 000672:      ASR     R2
237 000674:      MOV     P2,B,HBLK(R3)               ;RESTORE ORIGINAL HRL FILE SIZE.
238 000700:      CLR     B,HRLW(R3)                  ;RESET HRL FILE INITIALIZED FLAG.
239 000704:      CLR     ABRTFL                       ;CLEAR ABORT FLAG.
240 000710:      CALL    ,DLFNB                      ;DELETE THE HRL FILE
241 000714:
20$:
242 000714:      INCB    CMDX                         ;SET UP ACKNOWLEDGE CODE.
243 000720:      CLC                                ;SET NORMAL RETURN CODE.
244 000722:      RETURN

```

HLPROB. - PROBE.UHL.SIZE.SUBROUTINE

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

246      ;SBTTL- HLPROB- - PROBE UHL-SIZE-SUBROUTINE
247      ;
248      HLPROB:
249      000724      TST-      NBUHL-      ;DOES-CURRENT-QID-HAVE-UHL-SUBFILE?
250      000724      BEQ-      HLPBFX-      ;IF-NOT-AUTOMATIC-SUCCESS-OF-PROBE
251      000732      016703      003466      MOV-      B$BADR,R3      ;GET-CURRENT-BATCH-STATUS-TABLE
252      000736      005763      000124      TST-      B,HRLW(R3)      ;HAS-HRL.MRG-ALREADY-BEEN-INITIALIZED?
253      000742      001022      BNE-      10$      ;IF-NO-WE-NEED-NOT-OPEN-HRL-FILE
254      000744      CALL-      HLINIT-      ;INITIALIZE-HRL-FILE
255      000750      012701      004570      MOV-      #IOCB3,R1      ;LOAD-THE-IOCB-AGAIN
256      000754      CALL-      RELBUF-      ;FORCE-LAST-BUFFER-TO-BE-OUTPUT
257      000760      005363      000120      DEC-      B,HBLK(R3)      ;REDUCE-AVAILABLE-HRL-BLOCK-COUNT
258      000764      WAIT$      ,EVRT(R1)      ;MAKE-SURE-ALL-WRITE-BEHIND-COMPLETE
259      000776      142761      000240      000007      BICB-      #BUFOPN!BUFE0F,ATTR(R1)      ;RESET-THE-IOCB
260      001004      CLOSE$      ;CLOSE-THE-HRL.MRG-FILE
261      ;
262      ;
263      ;      APPLY-BLOCK-TEST: IF-((NBUHL*4)+2)/3 <= B.HBLK, THE-UHL-SUBFILE-
264      ;      WILL-DEFINITELY-FIT. THUS, IF-THIS-CONDITION-IS-TRUE, WE-DO-NOT-
265      ;      READ-THE-UHL-SUBFILE-TO-DETERMINE-THE-ACTUAL-NUMBER-OF-ENTRIES.
266      001010      10$:
267      001010      016701      003412      MOV-      NBUHL,R1      ;GET-NUMBER-OF-UHL-BLOCKS
268      001014      006301      ASL-      R1      ;MULTIPLY-BY-4
269      001016      006301      ASL-      R1
270      001020      062701      000002      ADD-      #2,P1
271      001024      005000      CLR-      P0      ;SET-UP-AND-PERFORM-DIVIDE
272      001026      071027      000003      DIV-      #3,R0      ;END-OF-REQUIRED-HRL-BLOCKS-CALCULATION
273      001032      016703      003366      MOV-      B$BADR,R3      ;GET-CURRENT-BATCH-STATUS-TABLE
274      001036      020063      000120      CMP-      R0,B.HBLK(R3)      ;COMPARE-WITH-REMAINING-HRL-BLOCK-COUNT
275      001042      003462      BLE-      20$      ;UHL-WILL-DEFINITELY-FIT
276      ;
277      ;      AT-THIS-POINT,IF-WE-REDUCE-BY-1-THE-REQUIRED-NUMBER-OF-
278      ;      HRL-BLOCKS,AND-THERE-ARE-STILL-NOT-ENOUGH-HRL-BLOCKS-LEFT,
279      ;      OBTAINING-THE-ACTUAL-ENTRY-COUNT-IS-FUTILE, SINCE-THE-ESTIMATED-
280      ;      REQUIRED-BLOCKS-(AS-CALCULATED-FROM-AN-ENTRY-COUNT) WOULD-FAIL
281      ;      ANYWAY, THUS-HERE-TOO, THERE-IS-NO-NEED-TO-OPEN-THE-UHL-SUBFILE.
282      ;
283      001044      005300      DEC-      R0
284      001046      020063      000120      CMP-      R0,B.HBLK(R3)
285      001052      003054      BGT-      10$      ;REPORT-NO-FIT-ESTIMATE

```

```

287      ; THE CASE WE HAVE NOW IS THAT THE UHL FILE MAY POSSIBLY FIT,
288      ; DEPENDING UPON THE ACTUAL NUMBER OF ENTRIES IN THE LAST BLOCK.
289      ; SO WE WILL PROCEED TO READ THE SUBFILE HEADER TO EXTRACT THE
290      ; ACTUAL UHL ENTRY COUNT.
291      ;
292 001054 012702 004520*      MOV  #IOCB1,R2      ; IOCB OF UHL SUBFILE
293 001060 016762 003344 000012      MOV  STUHL,LBLK(R2)      ; PRIME ONLY A SINGLE BUFFER
294 001066      CALL  ULINIT      ; GET FIRST BLOCK OF UHL
295 001072 103015      BCC  12$      ; BRANCH IF OK
296 001074 016767 003276 003276      MOV  QRYID,PAR1      ; MSGOUT PARAMETER
297 001102      MOUT$S  #MSG2,#MSGPAR      ; OPEN FAILURE - UHL SUBFILE
298 001122 000261      SEC      ; SET RETURN CODE TO FAILURE
299 001124 000432      BR  HLPRBX      ; EXIT SUBROUTINE
300 001126      ;
301 001126 012701 004520*      MOV  #IOCB1,R1      ; LOAD THE UHL SUBFILE IOCB
302 001132      CALL  RELBUF      ; RELEASE LAST BUFFER
303 001136 142761 000240 000007      BICB  #BUFOPN!BUFE0F,ATTR(R1)      ; RESET THE IOCB
304 001144      CLOSE$  FDBAD(R1)      ; CLOSE THE SPOOL FILE
305      ;
306 001154 005767 003256      TST  UHLCNT      ; CHECK UHL ENTRY COUNT
307 001160 001413      BEQ  20$      ; IF NONE, AUTOMATIC FIT
308 001162 116701 003251      MOV#  UHLCNT+1,R1      ; EACH GROUP OF 256 UHL ENTRIES
309 001166 105767 003244      TSTB  UHLCNT      ; POTENTIALLY REQUIRES A BLOCK
310 001172 001401      BEQ  15$      ; IN THE MERGED HRL FILE
311 001174 005201      INC  R1      ; IN THE WORST CASE OF NO DOC ID OVERLAP
312 001176      ;
313 001176 020163 000120      CMP  R1,B.HBLK(R3)      ; COMPARE ESTIMATED BLOCKS WITH ACTUAL
314 001202 003402      BLE  18$
315 001204      ;
316 001204 105267 003163      INCB  CMDX      ;
317 001210      ;
318 001210 000241      CLC      ;
319 001212      HLPRBX      ;
320 001212 000207      RETURN

```

```

322.                                     .SBTTL LOCATE BATCH TABLE AND QUERY SPOOL FILE SUBROUTINE.
323.                                     ;
324.                                     ;
325.                                     ; THIS ROUTINE INTERPRETS THE COMMAND PACKET SENT BY MSCHED.
326.                                     ; IT LOCATES AND VERIFIES THE CORRECT BATCH STATUS TABLE TO BE USED.
327.                                     ; IT LOCATES THE QUERY SPOOL FILE DATA WITHIN THE BST, EXTRACTS THE
328.                                     ; START BLOCK OF THE UHL SUBFILE AND THE NUMBER OF UHL BLOCKS, AND
329.                                     ; EXITS WITH R1 POINTING TO THE FDSC OF THE QUERY SPOOL FILE.
330. 001214 LOCOPY:
331. 001214 105067 003155 CLR B, BCHNO+1
332. 001220 016702 003150 MOV B, BCHNO, R2
333. 001224 016203 000000G MOV B, BSTPTR(R2), R3
334. 001230 010367 003170 MOV R3, BSTADR
335. 001234 132767 000001 003131 BIT B, #1, CMDX
336. 001242 BOM LOCXIT
337. 001244 016701 003126 MOV R, QRYID, R1
338. 001250 003015 BGT 20$
339. 001252 001416 BEQ 25$
340. 001254 010167 003120 MOV R1, PAR1
341. 001260 MOUT$S, #MSG5, #MSGPAR
342. 001300 000261 SEC
343. 001302 000415 BR LOCXIT
344. 001304 20$:
345. 001304 070127 000014 MUL #Q, SIZE, R1
346. 001310 25$:
347. 001310 062701 000316 ADD #B, QSPL, R1
348. 001314 060301 ADD R3, R1
349. 001316 012167 003106 MOV (R1)+, STUHL
350. 001322 012167 003100 MOV (R1)+, NBUHL
351. 001326 010167 003100 MOV R1, FDUHL
352. 001332 005267 003072 INC STUHL
353. 001336 LOCXIT:
354. 001336 000241 CLC
355. 001340 000207 RETURN

```



```
357 .SBTTL INITIALIZE HRL MERGE FILE SUBROUTINE.
358 :
359 :
360 : THIS SUBROUTINE OPENS THE HRL FILE USING IOCB3 (OUTPUT OPERATIONS).
361 : SPACE FOR THE HRL FILE IS ALLOCATED (AS DETERMINED BY B.HBLK).
362 : IF THE HRL FILE HAS NOT BEEN INITIALIZED YET IN THIS BATCH CYCLE,
363 : AN END OF FILE SENTINEL IS WRITTEN IN THE FIRST BLOCK, AND
364 : THE COMMON FIELDS B.HRLR AND B.HRLW ARE INITIALIZED.
365 : THE PROGRAM ALSO SETS THE END OF HRL DATA FLAG AND POINTS TO THE
366 : DUMMY DOCUMENT ID SO THAT THE MERGE LOGIC CAN BE INDIFFERENT TO
367 : WHETHER IT IS WORKING WITH THE FIRST OR A LATER QUERY.
368 : IF THE MERGE FILE HAS BEEN INITIALIZED ON A PREVIOUS CALL, THE
369 : PROGRAM STARTS PRIMING INPUT HRL BUFFERS (USING IOCB2) WITH OLD
370 : MASTER HPL DATA, ASSIGNS A BUFFER TO THE PROGRAM FOR THE NEW
371 : MASTER FILE, AND TRANSFERS A HEADER RECORD TO THE OUTPUT BUFFER.
372 :
373 HLINIT:
374 001342. SAVE R3
375 001342. MOV #IOCB3,R0 : OUTPUT IOCB FOR HRL MERGE FILE.
376 001344 012700 004570* MOV FDBAD(R0),R0 : GET ITS FDB.
377 001350 016000 000004 MOV BSTADR,R2 : GET ADDRESS OF BST.
378 001354 016702 003044 TST B,HRLW(R2) : HAS THE FILE BEEN ALLOCATED YET?
379 001358 005762 000124 BNE 15$ : BRANCH IF SO.
380 001372 MOV #FNR,R1 : FILE NUMBER OF HPL MRG.
381 001376 016203 000120 CALL BLDNFL : CONSTRUCT FILE NAME BLOCK IN THE FDB.
382 001402 006303 MOV B,HBLK(R2),R3 : GET REQUIRED SPACE FOR HRL FILE.
383 001404 006303 RSL R3 : CONVERT TO VIRTUAL BLOCKS.
384 001406 RSL R3
385 001412 FDATA R0,...,R3 : ALLOCATE SPACE.
386 001424 103012. OFNB$W : OPEN FILE.
387 001426 BCC 10$ : BRANCH IF OPEN WAS OK.
388 001446 000261 MOUT$S #MSG1,#MSGPAR : REPORT ERROR IF OPEN FAILED.
389 001450 000542 SEC : SET FAILURE CONDITION CODE.
390 001452 BR HLNITX : EXIT SUBROUTINE.
391 001452 005262 000124 10$: INC B,HRLW(R2) : SET UP HRL MRG WRITE POINTER.
392 001456 016262 000124 000122. MOV B,HRLR(R2),B,HRLR(R2) : SET UP HRL MRG READ POINTER.
393 001464 012701 000172 MOV #B,FMR,P1 : GET ADDRESS OF THE FDC FOR HRL MRG.
394 001470 000201 ADD R2,R1
395 001472 016021 000102 MOV F,FNB+N,FID(R0),(R1)+ : SET UP FILE DESCRIPTOR.
396 001476 016021 000104 MOV F,FNB+N,FID+2(R0),(R1)+ : FILE ID.
397 001502 016021 000120 MOV F,FNB+N,FVER(R0),(R1)+ : VERSION NUMBER.
398 001506 012711 000010 MOV #FNR,R1 : FILE NUMBER.
399 001512 005267 002716 INC EOHRL : SET END OF MASTER FILE FLAG.
400 001516 012767 004500* 002752. MOV #EOFD0C,HDOC : SET UP DUMMY DOC ID FOR HRL FILE.
401 001524 000463 BR 30$ : BRANCH TO PUT HEADER RECORD.
```

```

483      :      SET-UP-MULTIPLE-BUFFERING-OF-INPUT-HRL-
484      :
485      15$:
486      MOV.  #B.FHMR,R1      ;GET-ADDRESS-OF-THE-FDSC-FOR-HPL-MRG-
487      ADD.  R2,R1
488      CALL. BLDEFL.        ;BUILD-FILE-NAME-BLOCK-IN-EDB-
489      OFNB$M.              ;OPEN-FILE
490      BCC.   20$           ;BRANCH-IF-OPEN-WAS-OK
491      MOUT$S. #MSG1,#MSGPAR. ;REPORT-ERROR-IF-OPEN-FAILED
492      SEC.
493      BR.    HLNITX.        ;SET-FAILURE-CONDITION-CODE
494      :
495      20$:
496      TST.  ABRTFL.        ;ABORT-COMMAND?
497      BNE.  HLNITX.        ;EXIT-IF-NO
498      MOV.  #IOCB2,R1      ;GET-INPUT-HRL-IOCB-
499      MOV.  B.HRLW(R2),CBLK(R1) ;DEFINE-LOGICAL-START-OF-FILE
500      MOV.  B.HRLW(R2),LBLK(R1) ;DEFINE-LOGICAL-END-OF-FILE(WRAPAROUND)
501      CLR.  EOHRL.         ;RESET-END-OF-HPL-FILE-FLAG
502      CALL. BUFIO.         ;START-PRIMING-INPUT-BUFFERS
503      CALL. GETBUF.        ;ASSIGN-FIRST-BUFFER-TO-PROGRAM
504      MOV.  CBUF(R1),R0     ;GET-BUFFER-ADDRESS
505      CMP.  HRLHDR,(R0)+    ;VERIFY-PRESENCE-OF-FILE-HEADER
506      BEQ.  25$           ;BRANCH-IF-OK
507      :
508      :
509      : IF-WE-GET-HERE-SOMEONE-HAS-SCREWED-UP-THE-POINTERS-IN-COMMON-
510      : OR-THERE-IS-SOME-SORT-OF-TIMING-BUG-
511      :
512      SEC.
513      BR.    HLNITX.
514      :
515      25$:
516      TST.  (R0)+          ;SKIP-PAST-PAD-WORD-
517      MOV.  R0,HRLNXT.      ;SET-UP-FOR-HGET-CALLS
518      MOV.  #N.BUFW,HRLCNT. ;INITIALIZE-REMAINING-BUFFER-SPACE
519      :
520      :
521      : SET-UP-WRITE-BEHIND-OUTPUT-FOR-NEW-MERGE-FILE-OUT-OF-EDB-AROUND-
522      :
523      30$:
524      MOV.  #IOCB3,R1      ;GET-IOCB-FOR-NEW-HRL-FILE-
525      MOV.  B.HRLW(R2),CBLK(R1) ;INITIALIZE-LOGICAL-START-OF-FILE
526      CALL. GETBUF.        ;ASSIGN-OUTPUT-BUFFER-TO-THE-PROGRAM
527      MOV.  CBUF(R1),HRLOUT. ;INITIALIZE-BUFFER-POINTER
528      MOV.  #N.BUFW,SCOUNT. ;INITIALIZE-AVAILABLE-BUFFER-SPACE
529      MOV.  #HRLHDR,R2.     ;LOCATE-HRL-FILE-HEADER-AND-EOD-SENTINEL
530      MOV.  #3,R3           ;THREE-WORDS-OF-DATA
531      CALL. HPUT.           ;OUTPUT-THE-HEADER-RECORD
532      INC.  SCOUNT.        ;FORCE-NEXT-HPUT-TO-WRITE-OVER-EOD-SENTINEL
533      SUB.  #2,HRLOUT.      ;ADJUST-BUFFER-POINTER-ACCORDINGLY
534      CLC.
535      :
536      :
537      : SET-SUCCESS-RETURN-CODE-
538      :
539      HLNITX:
540      RESTOR. R3
541      RETURN.

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

456                                     ,SBTTL: START-UP UHL FILE SUBROUTINE (ULINIT)
457                                     :
458                                     : THIS SUBROUTINE INITIALIZES THE USER HIT FILE FOR INPUT.
459                                     : IT IS CALLED BY BOTH THE PROBE UHL AND THE MERGE UHL COMMANDS.
460                                     : IF NO USER HIT LIST IS INDICATED (BY THE NUMBER OF UHL BLOCKS
461                                     : IN THE QUERY'S BST), UHLCNT WILL BE SET TO 0, AND THE RETURN
462                                     : WILL INDICATE SUCCESS. IF THE NUMBER OF UHL BLOCKS IS POSITIVE,
463                                     : THE QUERY SPOOL FILE WILL BE OPENED, AND THE INDICATED BUFFERS
464                                     : WILL BE PRIMED WITH INPUT. IF THE OPEN FAILS, THE RETURN CODE
465                                     : WILL BE SET TO INDICATE FAILURE. ON ENTRY, R1 -> THE FDSC
466                                     : OF THE QUERY SPOOL FILE, AS OBTAINED FROM THE BST.
467                                     :
468                                     :
469                                     :
470                                     :
471                                     :
472                                     :
473                                     :
474                                     :
475                                     :
476                                     :
477                                     :
478                                     :
479                                     :
480                                     :
481                                     :
482                                     :
483                                     :
484                                     :
485                                     :
486                                     :
487                                     :
488                                     :
489                                     :
490                                     :
491                                     :
492                                     :
493                                     :
494                                     :
495                                     :
496                                     :
497                                     :
498                                     :
499                                     :
500                                     :
501                                     :
502                                     :
503                                     :
504                                     :
505                                     :
506                                     :
507                                     :
508                                     :
509                                     :
510                                     :
511                                     :
512                                     :
513                                     :
514                                     :
515                                     :
516                                     :
517                                     :
518                                     :
519                                     :
520                                     :
521                                     :
522                                     :
523                                     :
524                                     :
525                                     :
526                                     :
527                                     :
528                                     :
529                                     :
530                                     :
531                                     :
532                                     :
533                                     :
534                                     :
535                                     :
536                                     :
537                                     :
538                                     :
539                                     :
540                                     :
541                                     :
542                                     :
543                                     :
544                                     :
545                                     :
546                                     :
547                                     :
548                                     :
549                                     :
550                                     :
551                                     :
552                                     :
553                                     :
554                                     :
555                                     :
556                                     :
557                                     :
558                                     :
559                                     :
560                                     :
561                                     :
562                                     :
563                                     :
564                                     :
565                                     :
566                                     :
567                                     :
568                                     :
569                                     :
570                                     :
571                                     :
572                                     :
573                                     :
574                                     :
575                                     :
576                                     :
577                                     :
578                                     :
579                                     :
580                                     :
581                                     :
582                                     :
583                                     :
584                                     :
585                                     :
586                                     :
587                                     :
588                                     :
589                                     :
590                                     :
591                                     :
592                                     :
593                                     :
594                                     :
595                                     :
596                                     :
597                                     :
598                                     :
599                                     :
600                                     :
601                                     :
602                                     :
603                                     :
604                                     :
605                                     :
606                                     :
607                                     :
608                                     :
609                                     :
610                                     :
611                                     :
612                                     :
613                                     :
614                                     :
615                                     :
616                                     :
617                                     :
618                                     :
619                                     :
620                                     :
621                                     :
622                                     :
623                                     :
624                                     :
625                                     :
626                                     :
627                                     :
628                                     :
629                                     :
630                                     :
631                                     :
632                                     :
633                                     :
634                                     :
635                                     :
636                                     :
637                                     :
638                                     :
639                                     :
640                                     :
641                                     :
642                                     :
643                                     :
644                                     :
645                                     :
646                                     :
647                                     :
648                                     :
649                                     :
650                                     :
651                                     :
652                                     :
653                                     :
654                                     :
655                                     :
656                                     :
657                                     :
658                                     :
659                                     :
660                                     :
661                                     :
662                                     :
663                                     :
664                                     :
665                                     :
666                                     :
667                                     :
668                                     :
669                                     :
670                                     :
671                                     :
672                                     :
673                                     :
674                                     :
675                                     :
676                                     :
677                                     :
678                                     :
679                                     :
680                                     :
681                                     :
682                                     :
683                                     :
684                                     :
685                                     :
686                                     :
687                                     :
688                                     :
689                                     :
690                                     :
691                                     :
692                                     :
693                                     :
694                                     :
695                                     :
696                                     :
697                                     :
698                                     :
699                                     :
700                                     :
701                                     :
702                                     :
703                                     :
704                                     :
705                                     :
706                                     :
707                                     :
708                                     :
709                                     :
710                                     :
711                                     :
712                                     :
713                                     :
714                                     :
715                                     :
716                                     :
717                                     :
718                                     :
719                                     :
720                                     :
721                                     :
722                                     :
723                                     :
724                                     :
725                                     :
726                                     :
727                                     :
728                                     :
729                                     :
730                                     :
731                                     :
732                                     :
733                                     :
734                                     :
735                                     :
736                                     :
737                                     :
738                                     :
739                                     :
740                                     :
741                                     :
742                                     :
743                                     :
744                                     :
745                                     :
746                                     :
747                                     :
748                                     :
749                                     :
750                                     :
751                                     :
752                                     :
753                                     :
754                                     :
755                                     :
756                                     :
757                                     :
758                                     :
759                                     :
760                                     :
761                                     :
762                                     :
763                                     :
764                                     :
765                                     :
766                                     :
767                                     :
768                                     :
769                                     :
770                                     :
771                                     :
772                                     :
773                                     :
774                                     :
775                                     :
776                                     :
777                                     :
778                                     :
779                                     :
780                                     :
781                                     :
782                                     :
783                                     :
784                                     :
785                                     :
786                                     :
787                                     :
788                                     :
789                                     :
790                                     :
791                                     :
792                                     :
793                                     :
794                                     :
795                                     :
796                                     :
797                                     :
798                                     :
799                                     :
800                                     :
801                                     :
802                                     :
803                                     :
804                                     :
805                                     :
806                                     :
807                                     :
808                                     :
809                                     :
810                                     :
811                                     :
812                                     :
813                                     :
814                                     :
815                                     :
816                                     :
817                                     :
818                                     :
819                                     :
820                                     :
821                                     :
822                                     :
823                                     :
824                                     :
825                                     :
826                                     :
827                                     :
828                                     :
829                                     :
830                                     :
831                                     :
832                                     :
833                                     :
834                                     :
835                                     :
836                                     :
837                                     :
838                                     :
839                                     :
840                                     :
841                                     :
842                                     :
843                                     :
844                                     :
845                                     :
846                                     :
847                                     :
848                                     :
849                                     :
850                                     :
851                                     :
852                                     :
853                                     :
854                                     :
855                                     :
856                                     :
857                                     :
858                                     :
859                                     :
860                                     :
861                                     :
862                                     :
863                                     :
864                                     :
865                                     :
866                                     :
867                                     :
868                                     :
869                                     :
870                                     :
871                                     :
872                                     :
873                                     :
874                                     :
875                                     :
876                                     :
877                                     :
878                                     :
879                                     :
880                                     :
881                                     :
882                                     :
883                                     :
884                                     :
885                                     :
886                                     :
887                                     :
888                                     :
889                                     :
890                                     :
891                                     :
892                                     :
893                                     :
894                                     :
895                                     :
896                                     :
897                                     :
898                                     :
899                                     :
900                                     :
901                                     :
902                                     :
903                                     :
904                                     :
905                                     :
906                                     :
907                                     :
908                                     :
909                                     :
910                                     :
911                                     :
912                                     :
913                                     :
914                                     :
915                                     :
916                                     :
917                                     :
918                                     :
919                                     :
920                                     :
921                                     :
922                                     :
923                                     :
924                                     :
925                                     :
926                                     :
927                                     :
928                                     :
929                                     :
930                                     :
931                                     :
932                                     :
933                                     :
934                                     :
935                                     :
936                                     :
937                                     :
938                                     :
939                                     :
940                                     :
941                                     :
942                                     :
943                                     :
944                                     :
945                                     :
946                                     :
947                                     :
948                                     :
949                                     :
950                                     :
951                                     :
952                                     :
953                                     :
954                                     :
955                                     :
956                                     :
957                                     :
958                                     :
959                                     :
960                                     :
961                                     :
962                                     :
963                                     :
964                                     :
965                                     :
966                                     :
967                                     :
968                                     :
969                                     :
970                                     :
971                                     :
972                                     :
973                                     :
974                                     :
975                                     :
976                                     :
977                                     :
978                                     :
979                                     :
980                                     :
981                                     :
982                                     :
983                                     :
984                                     :
985                                     :
986                                     :
987                                     :
988                                     :
989                                     :
990                                     :
991                                     :
992                                     :
993                                     :
994                                     :
995                                     :
996                                     :
997                                     :
998                                     :
999                                     :
1000                                    :

```

HRLMRG- MACRO-M1110 27-MAR-80 13:29 PAGE-24
GET-NEXT-HRL-ENTRY-ROUTINE-(HGET)

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
495
496 002100 HGET: .SETTL GET-NEXT-HRL-ENTRY-ROUTINE-(HGET)
497 002100
498 002100
499 002100 016704 002342 10$: MOV HRLNXT,R4 ;CHECK-NEXT-HRL-ENTRY-ADDRESS
500 002104 001425 BEQ 15$ ;IF-NOT-SET,GET-HRL-BUFFER
501 002106 005767 002340 TST HRLCNT ;ANY-SPACE-LEFT-IN-BUFFER?
502 002112 003412 BLE 13$ ;BRANCH-IF-NOT-
503 002114 036714 002374 BIT EODFLG,R4 ;TEST-FOR-EOD-OR-EOB-SENTINEL
504 002120 100006 BPL 12$ ;BRANCH-IF-NOT-EOD-SENTINEL
505 002122 005267 002306 INC EOHRL ;SET-END-OF-INPUT-HRL-FLAG
506 002126 012767 004500 002342 MOV #EODDOC,HDOC ;POINT-TO-DUMMY-EOF-DOCUMENT-ID
507 002134 000443 BR HGETX ;EXIT-SUBROUTINE
508 002136
509 002136 12$: BOFF 20$ ;BRANCH-IF-NOT-EOB-SENTINEL
510 002140 13$:
511 002140 012701 004544 MOV #IOCB2,R1 ;HRL-INPUT-IOCB
512 002144 CALL RELBUF ;RELEASE-THE-INPUT-BUFFER
513 002150 016702 002250 MOV BSTADR,R2 ;GET-BATCH-STATUS-TABLE
514 002154 005262 000120 INC B,HBLK(R2) ;RESTORE-THIS-BUFFER-TO-POOL
515 002160
516 002160 15$: CALL GETBUF ;GET-NEXT-HRL-BUFFER
517 002164 016167 000014 002254 MOV CBUF(R1),HRLNXT ;SET-HRLNXT-TO-START-OF-BUFFER
518 002172 012767 004000 002252 MOV #N,BUFB,HRLCNT ;INITIALIZE-REMAINING-BUFFER-SPACE
519 002200 000737 BR 10$ ;PTEST-HRLNXT
520 002202
521 002202 010403 20$: MOV R4,R3 ;COPY-POINTER-TO-HRL-ENTRY
522 002204 062703 000006 ADD #6,R3 ;R3->QUERY-COUNT-FOR-DOCUMENT
523 002210 112367 002240 MOVB (R3)+,QCOUNT ;SAVE-QUERY-COUNT->POINT-R3-PAST-IT
524 002214 066703 002234 ADD QCOUNT,R3 ;SKIP-OVER-QUERY-ID-BYTES
525 002220 005203 INC R3 ;ADJUST-FOR-POSSIBLE-PAD-BYTE
526 002222 042703 000001 BIC #1,R3 ;ALIGN-ON-WORD-BOUNDARY
527 002226 010467 002244 MOV R4,HDOC ;LOCATE-START-OF-ENTRY
528 002232 010367 002210 MOV R3,HRLNXT ;SET-LOCATION-OF-NEXT-HRL-ENTRY
529 002236 160403 SUB R4,R3 ;CALCULATE-BYTE-SIZE-OF-ENTRY
530 002240 160367 002206 SUB R3,HRLCNT ;SUBTRACT-IT-FROM-REMAINING-BUFFER-SPACE
531 002244 HGETX:
532 002244 RESTOR
533 002244 000207 RETURN
```

```

535                                     .SBTTL - GET-NEXT-UHL-ENTRY-ROUTINE (UGET)
536 002246                                UGET:
537 002246                                SAVE  R2,R3,R4
538 002254 012157 000003 002200        MOV  #3,DCNT          ;NUMBER OF WORDS IN DOC ID
539 002262 012703 004466*              MOV  #UDOC,R3          ;START OF DOC ID BUFFER
540 002266 005767 002146              TST  UHLNXT              ;CHECK POINTER TO NEXT SOURCE WORD
541 002272 001012                      BNE  20$                ;BRANCH IF DATA LEFT IN BUFFER
542                                     :
543                                     :
544 002274                                GET-NEW-UHL-BUFFER
545 002274 012701 004520*              10$: MOV  #IOCB1,R1          ;LOAD IOCB OF UHL FILE
546 002300                                CALL  GETBUF          ;GET NEXT INPUT BUFFER
547 002304 016167 000014 002126        MOV  CBUF(R1),UHLNXT      ;INITIALIZE SOURCE WORD POINTER TO TOP OF BUFFER
548 002312 012767 002000 002124        MOV  #N,BUFQ,UHLWD        ;INITIALIZE SIZE OF BUFFER
549                                     :
550                                     :
551 002320                                SET-UP-UHL-ENTRY-TRANSFER
552 002320 016702 002114              20$: MOV  UHLNXT,R2          ;SOURCE ADDRESS
553 002324 016704 002132              MOV  DCNT,R4          ;NUMBER OF WORDS TO BE TRANSFERRED
554 002330 026704 002110              CMP  UHLWD,R4          ;REMAINING BUFFER WORD COUNT SUFFICIENT?
555 002334 002003                      BGE  25$                ;BRANCH IF YES
556 002336 016704 002102              MOV  UHLWD,R4          ;LIMIT TRANSFER TO REMAINDER OF INPUT BUFFER
557 002342 001412                      BEQ  35$                ;BUFFER ALREADY COMPLETELY EXHAUSTED
558 002344                                25$:
559 002344 160467 002112              SUB  R4,DCNT          ;COMPUTE SIZE OF NEXT PARTIAL TRANSFER
560 002350 160467 002070              SUB  R4,UHLWD          ;COMPUTE REMAINING BUFFER WORD COUNT
561 002354 060467 002060              ADD  R4,UHLNXT          ;UPDATE BUFFER POINTER
562 002360 060467 002054              ADD  R4,UHLNXT          ;BYTE OFFSET
563 002364                                30$:
564 002364 012223                      MOV  (R2)+(R3)+      ;TRANSFER A WORD OF DOCUMENT ID
565 002366 077402                      SOB  R4,30$            ;NEXT WORD
566 002370                                35$:
567 002370 005767 002066              TST  DCNT              ;HAS ENTIRE DOCUMENT ID BEEN TRANSFERRED?
568 002374 001405                      BEQ  40$                ;IF SO, EXIT
569 002376 012701 004520*              MOV  #IOCB1,R1          ;IF NOT, GET IOCB OF THE UHL SUBFILE
570 002402                      CALL  RELBUF          ;RELEASE PREVIOUS INPUT BUFFER
571 002406 000732                      BR   10$                ;GET NEW UHL BLOCK
572 002410                                40$:
573 002410 005367 002022              DEC  UHLCNT          ;COUNT OF REMAINING DOCS IN THIS UHL
574 002414                      RESTOR R2,R3,R4
575 002422 000207                      RETURN

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

577      .SBTTL-OUTPUT-AN-HRL-ENTRY-SUBROUTINE-(HPUT)
578      ;
579      ;
580      ; THIS-SUBROUTINE-MOVES-AN-HRL-ENTRY-TO-AN-OUTPUT-BUFFER-
581      ; AND-ASSIGNS-THE-BUFFERS-TO-BE-WRITTEN-AS-THEY-FILL-UP-
582      ; (R2) = THE-ADDRESS-OF-THE-HRL-ENTRY-TO-BE-WRITTEN-
583      ; (R3) = THE-SIZE-(IN-WORDS)-OF-THE-HRL-ENTRY-
584      ; IF (R3) = 0, THE-CONTENTS-OF-R2-ARE-TAKEN-IMMEDIATELY-AS-
585      ; THE-ENTRY-TO-BE-WRITTEN-
586      HPUT:
587      002424 020367 002026      CMP-    R3,SCOUNT-      ;ENOUGH-SPACE-LEFT-IN-BUFFER?
588      002430 003023          BGT-    20$      ;BRANCH-IF-DEFINITELY-NOT-
589      002432 001412          BEQ-    10$      ;MAYBE-NOT-
590      002434 005703          TST-    R3      ;CHECK-SIZE-OF-HRL-ENTRY-
591      002436 003043          BGT-    30$      ;BRANCH-IF-(R2)-IS-ADDRESS-
592      002440 010277 002004      MOV-    R2,@HRLOUT-      ;IMMEDIATE-ENTRY-IN-R2-
593      002444 062767 000002 001776      ADD-    #2,HRLOUT-      ;ADJUST-BUFFER-POINTER-
594      002452 005367 002000      DEC-    SCOUNT-      ;ADJUST-SPACE-LEFT-IN-BUFFER-
595      002456 000443          BR-    40$      ;EXIT-
596      002460          10$:
597      002460 005703          TST-    R3      ;IMMEDIATE-TRANSFER?
598      002462 003031          BGT-    30$      ;IF-NOT-EXACTLY-ENOUGH-SPACE-LEFT-
599      002464 005203          INC-    R3      ;CHANGE-TYPE-OF-MOVE-
600      002466 010267 001750      MOV-    R2,UHLSAV-      ;FROM-IMMEDIATE-TRANSFER-
601      002472 012702 004442      MOV-    #UHLSAV,R2-      ;TO-INDIRECT-TRANSFER-
602      002476 000752          BR-    HPUT      ;REST-BUFFER-SPACE-LEFT-
603      002500          20$:
604      002500 016777 002012 001742      MOV-    E0BFLG,@HRLOUT      ;SET-END-OF-BUFFER-SENTINEL-
605      002506 012701 004570      MOV-    #IOCB3,R1      ;SET-UP-FOR-HRL-WRITE-
606      002512          CALL-    RELBUF-      ;OUTPUT-CURRENT-BUFFER-
607      002516 016705 001702      MOV-    B,STADR,R5      ;GET-BATCH-STATUS-TABLE-
608      002522 005365 000120      DEC-    B,HBLK(R5)      ;REDUCE-AVAILABLE-HRL-FILE-BLOCK-COUNT-
609      002526          CALL-    GETBUF-      ;GET-NEW-BUFFER-
610      002532 016167 000014 001710      MOV-    CBUF(R1),HRLOUT-      ;SET-BUFFER-POINTER-
611      002540 012767 002000 001710      MOV-    #N,BUFW,SCOUNT      ;SET-SPACE-LEFT-IN-BUFFER-
612      002546          30$:
613      002546 160367 001704      SUB-    R3,SCOUNT-      ;ADJUST-SPACE-LEFT-IN-BUFFER-
614      002552 016704 001672      MOV-    HRLOUT,R4      ;SET-DESTINATION-ADDRESS-
615      002556          35$:
616      002556 012224          MOV-    (R2)+,(R4)+      ;MOVE-WORD-OF-ENTRY-AUTOINCEMENT-
617      002560 077302          SOB-    R3,35$      ;NEXT-WORD-OF-ENTRY-
618      002562 010467 001662      MOV-    R4,HRLOUT-      ;ADJUST-BUFFER-POINTER-
619      002566          40$:
620      002566          RESTOR-
621      002566 000207          RETURN-

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

623                                     .SBTTL BUFFER CONTROL ROUTINES.
624                                     ;
625                                     ;
626                                     ; GET/RELEASE BUFFER.
627                                     ; THESE SUBROUTINES ARE REENTRANT AND REQUIRE THAT R1 -> DESIRED IOCB.
628-002570 GETBUF:
629-002570
630-002572 116102 000016
631-002576 032762 000001 005114'
632-002604
633-002606 105761 000021
634-002612 001002
635-002614
636-002620
637-002620 10$:
638-002636
639-002636 016261 005114' 000014
640-002644 000423
641
642-002646
643-002646
644-002650 116102 000016
645-002654 052762 000001 005114'
646-002662
647-002666 126161 000016 000023
648-002674 002004
649-002676 062761 000002 000016
650-002704 000403
651-002706
652-002706 116161 000022 000016
653-002714
654-002714
655-002716 000207

                                     SAVE R2
                                     MOVB NXTG(R1),R2
                                     BIT *BUFLOK,BDB(R2)
                                     BOFF 20$
                                     TSTB NXTR+1(R1)
                                     BNE 10$
                                     CALL BUFIO
                                     WAIT$ FDBAD(R1),EVNT(R1)
                                     20$:
                                     MOVB BDB(R2),CBUF(R1)
                                     BR BUFEXIT
                                     ;
                                     RELBUF:
                                     SAVE R2
                                     MOVB NXTG(R1),R2
                                     BIS *BUFLOK,BDB(R2)
                                     CALL BUFIO
                                     CMPB NXTR(R1),LBDB(R1)
                                     BGE 15$
                                     ADD *2,NXTG(R1)
                                     BR BUFEXIT
                                     15$:
                                     MOVB IBDB(R1),NXTG(R1)
                                     BUFEXIT:
                                     RESTOR R2
                                     RETURN
                                     ; GET-OFFSET-TO-INTENDED-BUFFER
                                     ; IS-NEXTG-BUFFER-ASSIGNABLE-YET
                                     ; BRANCH-IF-IT-IS
                                     ; HAS-I/O-BEEN-STARTED-ON-THIS-IOCB?
                                     ; IF-IT-HAS-WE-ARE-I/O-BOUND--WAIT
                                     ; IF-NOT-INPUT-BUFFERS-NEED-TO-BE-PRIMED
                                     ; WAIT-FOR-I/O-COMPLETION
                                     ; LOAD-ADDRESS-OF-ASSIGNED-BUFFER
                                     ; GET-OFFSET-TO-INTENDED-BUFFER
                                     ; MARK-BUFFER-UNASSIGNABLE
                                     ; START-UP-I/O-IF-POSSIBLE
                                     ; LAST-BUFFER-FOR-THIS-FILE?
                                     ; RECYCLE-IF-YES
                                     ; SELECT-NEXT-BUFFER-TO-BE-ASSIGNED
                                     ; SELECT-FIRST-BUFFER
  
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

657      :
658      :
659      :      ASYNCHRONOUS EXIT ROUTINE.
660 002720      ASTX:
661 002720 010167 001534      MOV.    R1,R1SAV.      ;SAVE R1
662 002724 011601      MOV.    (SP),R1      ;GET IOST (SAME AS IOCB) ADDRESS FROM STACK.
663 002726 116101 000020      MOV.    NXTR(R1),R1      ;GET OFFSET TO I/O ACTIVE BUFFER.
664 002732 042761 000001 005114'      BIC.    #BUFLOK,BDB(R1)      ;UNLOCK THE BUFFER.
665 002740 012601      MOV.    (SP)+,R1      ;POP IOCB ADDRESS FROM STACK.
666 002742 005261 000010      INC.    CBLK(R1)      ;POINT TO NEXT LOGICAL BLOCK.
667 002746 105061 000021      CLR.    NXTR+1(R1)      ;RESET I/O IN PROGRESS FLAG.
668 002752 126161 000020 000023      CMFB.   NXTR(R1),LBDB(R1)      ;WAS THIS THE LAST BUFFER FOR FILE?
669 002760 002004      BGE.    10$      ;RECYCLE IF YES.
670 002762 062761 000002 000020      ADD.    #2,NXTR(R1)      ;SELECT NEXT BUFFER FOR I/O.
671 002770 000403      BR.      20$
672 002772      :
673 002772 116161 000022 000020      10$:      MOV.    IBDB(R1),NXTR(R1)      ;NEXT I/O BUFFER IS FIRST.
674      :
675      :
676 003000      :
677 003000      20$:      START I/O ON NEXT BUFFER.
678 003002 016100 000004      :
679 003006      :
680 003016      :
681 003026      :
682 003032      :
683 003042      :
684 003052      :
685 003054 016701 001400      :
686 003060      :
687      :
688      :
689      :
690      :
691 003066      :
692 003066 016100 000004      :
693 003072 016003 000006      :
694 003076 006203      :
695 003100 006203      :
696 003102 000207      :
697      :
698      :
699      :
700      :
701      :      CALCULATE LAST PHYSICAL BLOCK OF FILE.
702      :
703      :
704      :
705      :
706      :
707      :
708      :
709      :
710      :
711      :
712      :
713      :
714      :
715      :
716      :
717      :
718      :
719      :
720      :
721      :
722      :
723      :
724      :
725      :
726      :
727      :
728      :
729      :
730      :
731      :
732      :
733      :
734      :
735      :
736      :
737      :
738      :
739      :
740      :
741      :
742      :
743      :
744      :
745      :
746      :
747      :
748      :
749      :
750      :
751      :
752      :
753      :
754      :
755      :
756      :
757      :
758      :
759      :
760      :
761      :
762      :
763      :
764      :
765      :
766      :
767      :
768      :
769      :
770      :
771      :
772      :
773      :
774      :
775      :
776      :
777      :
778      :
779      :
780      :
781      :
782      :
783      :
784      :
785      :
786      :
787      :
788      :
789      :
790      :
791      :
792      :
793      :
794      :
795      :
796      :
797      :
798      :
799      :
800      :
801      :
802      :
803      :
804      :
805      :
806      :
807      :
808      :
809      :
810      :
811      :
812      :
813      :
814      :
815      :
816      :
817      :
818      :
819      :
820      :
821      :
822      :
823      :
824      :
825      :
826      :
827      :
828      :
829      :
830      :
831      :
832      :
833      :
834      :
835      :
836      :
837      :
838      :
839      :
840      :
841      :
842      :
843      :
844      :
845      :
846      :
847      :
848      :
849      :
850      :
851      :
852      :
853      :
854      :
855      :
856      :
857      :
858      :
859      :
860      :
861      :
862      :
863      :
864      :
865      :
866      :
867      :
868      :
869      :
870      :
871      :
872      :
873      :
874      :
875      :
876      :
877      :
878      :
879      :
880      :
881      :
882      :
883      :
884      :
885      :
886      :
887      :
888      :
889      :
890      :
891      :
892      :
893      :
894      :
895      :
896      :
897      :
898      :
899      :
900      :
901      :
902      :
903      :
904      :
905      :
906      :
907      :
908      :
909      :
910      :
911      :
912      :
913      :
914      :
915      :
916      :
917      :
918      :
919      :
920      :
921      :
922      :
923      :
924      :
925      :
926      :
927      :
928      :
929      :
930      :
931      :
932      :
933      :
934      :
935      :
936      :
937      :
938      :
939      :
940      :
941      :
942      :
943      :
944      :
945      :
946      :
947      :
948      :
949      :
950      :
951      :
952      :
953      :
954      :
955      :
956      :
957      :
958      :
959      :
960      :
961      :
962      :
963      :
964      :
965      :
966      :
967      :
968      :
969      :
970      :
971      :
972      :
973      :
974      :
975      :
976      :
977      :
978      :
979      :
980      :
981      :
982      :
983      :
984      :
985      :
986      :
987      :
988      :
989      :
990      :
991      :
992      :
993      :
994      :
995      :
996      :
997      :
998      :
999      :
1000     :

```


Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

708      ;      PERFORM I/O ON NEXT AVAILABLE BUFFER.
709      ;
710      ;      R1 -> BUFFER DEFINITION BLOCK.
711      ;
712      ;      BUFIO:
713      ;      SAVE      R0,R2,P3,R4
714      ;      BITB      #BUFOPN,ATTR(R1)
715      ;      BON       BUFIO:
716      ;      TST       CBLK(R1)
717      ;      BGT       10$
718      ;      MOV       #1,CBLK(R1)
719      ;
720      ;      TST       LBLK(R1)
721      ;      BGT       20$
722      ;      BITB      #BUFRAP,ATTR(R1)
723      ;      BON       20$
724      ;      CALL      GTBLK
725      ;      MOV       R3,LBLK(R1)
726      ;
727      ;      BITB      #BUFRD,ATTR(R1)
728      ;      BOFF      30$
729      ;      MOV      IBDB(R1),R2
730      ;
731      ;      BIS       #BUFLOK,BDB(R2)
732      ;      ADD      #2,R2
733      ;      CMPB     R2,LBDB(R1)
734      ;      BLE      25$
735      ;
736      ;      FDBK$R     FDBAD(R1),,,,,,*ASTX
737      ;      BISB      #BUFOPN,ATTR(R1)
738      ;
739      ;      SET UP I/O OPERATION.
740      ;
741      ;      BUFQIO:
742      ;      BITB      #BUFE0F,ATTR(R1)
743      ;      BON       BUFIOX
744      ;      TSTB      NXTR+1(R1)
745      ;      BNE       BUFIOX
746      ;      MOV       NXTR(R1),R2
747      ;      BIT       #BUFLOK,BDB(R2)
748      ;      BOFF      BUFIOX
749      ;      MOV       BDB(R2),R3
750      ;      BIT       #BUFLOK,R3
751      ;      FDBK$R     FDBAD(R1),R3
752      ;      FDBK$R     ,,,,EVNT(R1),R1
  
```

; HAS IOCB BEEN INITIALIZED YET?
 ; IF SO, SET UP I/O OPERATION.
 ; HAS LOGICAL START OF FILE BEEN SPECIFIED?
 ; BRANCH IF IT HAS
 ; SET START AT BEGINNING OF FILE
 ; HAS LOGICAL END BEEN SPECIFIED?
 ; BRANCH IF IT HAS
 ; HAS WRAP AROUND BEEN SPECIFIED?
 ; BRANCH IF IT HAS
 ; CALCULATE LOGICAL BLOCK SIZE OF FILE
 ; SET UP LOGICAL BLOCK TO STOP I/O
 ; IS THIS IOCB FOR READ OPERATIONS?
 ; BRANCH IF NOT
 ; GET OFFSET TO FIRST BUFFER
 ; MARK BUFFER UNASSIGNABLE
 ; STEP TO NEXT BUFFER
 ; LAST BUFFER BEEN MARKED?
 ; IF NOT, GO TO MARK IT
 ; DEFINE AST EXIT
 ; SET IOCB INITIALIZED FLAG
 ; HAS FILE'S LOGICAL EOF ALREADY BEEN REACHED?
 ; IF SO, EXIT
 ; IS I/O ALREADY IN PROGRESS ON THIS IOCB?
 ; EXIT IF SO
 ; GET OFFSET TO NEXT BUFFER FOR I/O
 ; IS BUFFER AVAILABLE FOR I/O?
 ; BRANCH IF NOT
 ; GET BUFFER ADDRESS
 ; CLEAR LOCK FLAG
 ; DEFINE BUFFER IN THE FDB
 ; DEFINE EVENT FLAG AND IOST BLOCK

```

754      ; DO THE APPROPRIATE I/O OPERATION
755      ;
756      10$:
757      003326 016103 000012      MOV.   LBLK(R1),R3      ;GET LAST LOGICAL BLOCK
758      003332 105261 000017      INCB.   NXTG+1(R1)      ;SET LOGICAL BLOCK INDICATOR
759      003336      20$:
760      003336 026103 000010      CMP.   CBLK(R1),R3      ;COMPARE CURRENT WITH LAST
761      003342 002427      50$:      BEQ.   50$      ;DO I/O - NOT LAST BLOCK
762      003344 001420      40$:      BEQ.   40$      ;DO I/O - TEST FOR LAST BLOCK
763      ;
764      003346 132761 000020 000007      BITB.   #BUFRAP,ATTR(R1)      ;LAST HIGH - FILE WRAP AROUND?
765      003354      BOFF.   BUFI0X      ;HAVE ALREADY REACHED END OF FILE
766      003356 105761 000017      TSTB.   NXTG+1(R1)      ;LOGICAL BLOCK INDICATOR SET?
767      003362 001004      BNE.   30$      ;BRANCH IF YES
768      003364 012761 000001 000010      MOV.   #1,CBLK(R1)      ;WRAP AROUND TO START OF FILE
769      003372 000755      BR.   10$      ;RETEST FOR LOGICAL EOF
770      003374      30$:
771      003374      CALL.   GTBLK      ;CALCULATE LAST PHYSICAL BLOCK IN FILE
772      003400 105061 000017      CLRB.   NXTG+1(R1)      ;RESET LOGICAL BLOCK INDICATOR
773      003404 000754      BR.   20$      ;RETEST FOR PHYSICAL END OF FILE
774      003406      40$:
775      003406 105761 000017      TSTB.   NXTG+1(R1)      ;WHICH END OF FILE IS BEING TESTED?
776      003412 001405      BEQ.   60$      ;BRANCH IF PHYSICAL EOF
777      003414 152761 000040 000007      BISB.   #BUFE0F,ATTR(R1)      ;SET LOGICAL EOF REACHED INDICATOR
778      003422      50$:
779      003422 105061 000017      CLRB.   NXTG+1(R1)      ;RESET LOGICAL BLOCK INDICATOR
780      ;
781      ; CALCULATE CURRENT VIRTUAL BLOCK FROM CBLK FIELD
782      ;
783      50$:
784      003426 016103 000010      MOV.   CBLK(R1),R3      ;GET CURRENT LOGICAL BLOCK
785      003432 005303      DEC.   R3
786      003434 006303      ASL.   R3
787      003436 006303      ASL.   R3
788      003440 005203      INC.   R3
789      003442 016100 000004      MOV.   FDBAD(R1),R0      ;VB = (CBLK-1)*4+1
790      003446 010360 000066      MOV.   R3,F.BKVB+2(R0)      ;GET FDB ADDRESS
791      003452 105261 000021      INCB.   NXTG+1(R1)      ;INITIALIZE VIRTUAL BLOCK ADDRESS IN FDB
792      003456 132761 000004 000007      INCB.   #BUFRD,ATTR(R1)      ;SET I/O IN PROGRESS
793      003464      BITB.   #BUFRD,ATTR(R1)      ;READ SPECIFIED?
794      003466      BOFF.   70$      ;BRANCH IF NOT
795      003472 000406      READ.   80$      ;PERFORM THE READ
796      003474      BR.   80$      ;CHECK SUCCESS
797      003474 132761 000010 000007      70$:
798      003502      BITB.   #BUFWP,ATTR(R1)      ;WAS WRITE SPECIFIED?
799      003504      BOFF.   BUFI0X      ;BRANCH IF NOT
800      003510      WRITE.   ;PERFORM THE WRITE
801      003510 103035      BCC.   BUFI0X      ;EXIT IF NO ERROR

```

HRLMRG- M1110 27-MAR-80 13:29 PAGE 31
BUFFER: CONTROL ROUTINES.

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
803      :      ERROR EXIT ON FCS DIRECTIVE.
804      :
805      :      ERRX:
806 003512 126027 000052 000000G CMPB  F.ERR(R0),#1E.EOF      :WAS THIS READ PAST LAST BLOCK
807 003520 001006      BNE      10$      :IF NOT, A TRUE ERROR
808 003522 152761 000040 000007 BISH  #BUFEOF,ATTR(R1)      :SET END OF FILE FLAG
809 003530 105061 000021      CLRB  NXTR+1(R1)      :RESET I/O IN PROGRESS FLAG
810 003534 000423      BR      BUFIOX      :EXIT ROUTINE
811 003536      10$:
812 003536 010167 000636      MOV  R1,PAR1
813 003542 116067 000052 000632 MOVB  F.ERR(R0),PAR2
814 003550 152767 000377 000625 BISH  #255,PAR2+1
815 003556      MOUT$S  #1566,#MSGPAR
816 003576      EXIT$S
817      :
818      :      RETURN POINT FOR BUFIO SUBROUTINE.
819      :
820 003604      BUFIOX:
821 003604      RESTOR  R0,R2,R3,R4
822 003614 000207      RETURN
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

.SBTL: ERROR HANDLING ROUTINE.
.NLIST: BEV.

:
: DIRECTIVE ERROR.
:
DIRERR: MOV: (SP),PAR1
MOV: $DSW,R0
MOV: R0,PAR2.
MOUT$: #MSGD, #PAR1
RETURN.

.PSECT.

:
: STRING DESCRIPTORS.
:
MSG0: .WORD: LN0E-LN0
: .WORD: LN0
MSG1: .WORD: LN1E-LN1
: .WORD: LN1
MSG2: .WORD: LN2E-LN2.
: .WORD: LN2
MSG3: .WORD: LN3E-LN3
: .WORD: LN3
MSG4: .WORD: LN4E-LN4
: .WORD: LN4
MSG5: .WORD: LN5E-LN5
: .WORD: LN5
MSG6: .WORD: LN6E-LN6
: .WORD: LN6
MSGD: .WORD: LNDE-LND.
: .WORD: LND.

:
: FORMAT STRINGS.
:
LN0: .ASCII: /HRLMRG PROGRAM EXIT - ACK CODE = %D/.
LN0E:
LN1: .ASCII: /HRL MERGE FILE OPEN FAILURE/.
LN1E:
LN2: .ASCII: /UHL OPEN FAILURE, QUERY ID = %ID/.
LN2E:
LN3: .ASCII: /INVALID COMMAND FROM MSCHED, CODE = %ID/.
LN3E:
LN4: .ASCII: /INCONSISTENT BATCH IDS, OPEN = %ID, COMMAND = %ID/.
LN4E:
LN5: .ASCII: /INVALID QUERY ID, QID = %ID/.
LN5E:
LN6: .ASCII: /BUFIO FAILURE, IOCB ADDRESS = %D, ERROR CODE = %D/.
LN6E:
LN: .ASCII: /PC = %ID, DIRECTIVE ERROR = %ID/.
LNDE:
: .EVEN.

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
876      ; .SBTTL DATA STORAGE AND SYMBOLIC VARIABLES.
877      ;
878 000000      ; .PSECT 10CBOF,ABS.
879 000000      IOST: .BLKW 2.      ; I/O STATUS BLOCK.
880 000004      FDBAD: .BLKW 1.      ; ADDRESS OF FDB
881 000006      EVNT: .BLKB 1.      ; ADDRESS OF EVENT FLAG.
882 000007      ATTR: .BLKB 1.      ; TYPE OF I/O.
883 000010      CBLK: .BLKW 1.      ; CURRENT LOGICAL BLOCK.
884 000012      LBLK: .BLKW 1.      ; LAST BLOCK (IF WRAP AROUND)
885 000014      CBUF: .BLKW 1.      ; ADDRESS OF BUFFER CURRENTLY IN USE.
886 000016      NXTG: .BLKW 1.      ; BDB OFFSET OF NEXT ENTRY FOR ASSIGNMENT
887 000020      NXTR: .BLKW 1.      ; BDB OFFSET OF NEXT ENTRY FOR I/O.
888 000022      IBDB: .BLKB 1.      ; FILE'S FIRST BDB INDEX.
889 000023      LBDDB: .BLKB 1.      ; FILE'S LAST BDB INDEX.
890 004366      ; .PSECT.
891      ;
892 004366      RCVB: .BLKW 2.      ; RECEIVE COMMAND BLOCK.
893 004372      PGMID: .BLKB 1.      ; PROGRAM ID.
894 004373      CMDX: .BLKB 1.      ; COMMAND/ACK CODE.
895 004374      BCHND: .BLKW 1.      ; BATCH NUMBER.
896 004376      QRYID: .BLKW 1.      ; QUERY ID.
897      ;
898 004400      MSGPAR: .BLKW 0.      ; MSGOUT: PARMS/RCVB BLOCK PAD.
899 004400 000000      PAR1: .WORD 0.
900 004402 000000      PAR2: .WORD 0.
901 004404 000000      PAR3: .WORD 0.
902 004406      ; .BLKW 7.
903 004424 000000      BSTADR: .WORD 0.      ; BATCH STATUS TABLE ADDRESS.
904 004426 000000      NBUHL: .WORD 0.      ; NUMBER OF UHL SUBFILE LOGICAL BLOCKS.
905 004430 000000      STUHL: .WORD 0.      ; LOGICAL BLOCK START OF UHL SUBFILE.
906 004432 000000      FDUHL: .WORD 0.      ; FDBS ADDRESS OF QUERY SPOOL FILE.
907 004434 000000      EDHRL: .WORD 0.      ; END OF HRL FLAG.
908 004436 000000      UHLCNT: .WORD 0.      ; REMAINING NUMBER OF UHL ENTRIES.
909 004440 000000      UHLNXT: .WORD 0.      ; UHL INPUT BUFFER POINTER.
910 004442 000000      UHLSAV: .WORD 0.      ; IMMEDIATE SEGMENT TRANSFER BUFFER.
911 004444 000000      UHLWD: .WORD 0.      ; SPACE LEFT IN UHL BUFFER.
912 004446 000000      HRLNXT: .WORD 0.      ; INPUT HRL BUFFER POINTER.
913 004450 000000      HRLOUT: .WORD 0.      ; OUTPUT HRL BUFFER POINTER.
914 004452 000000      HRLCNT: .WORD 0.      ; INPUT HRL BUFFER SPACE.
915 004454 000000      QCOUNT: .WORD 0.      ; NUMBER OF QIDS IN HRL ENTRY.
916 004456 000000      SCOUNT: .WORD 0.      ; SPACE LEFT IN HRL OUTPUT BUFFER.
917 004460 000000      RISAV: .WORD 0.      ; ASTX SAVE AREA.
918 004462 000000      DCNT: .WORD 0.      ; PARTIAL DOC ID WORD COUNTER.
919 004464 000000      ABRTFL: .WORD 0.      ; HRL ABORT COMMAND FLAG.
920      ;
921 004466      UDOC: .BLKW 3.      ; UHL ENTRY BUFFER + SKELETON HRL WORD.
922 004474 000001      ; .WORD 1.      ; SINGLE QUERY ID.
923 004476      HDOC: .BLKW 1.      ; INPUT HRL ENTRY POINTER.
924 004500 000017      EOFDOC: .WORD 15.      ; DUMMY DOC ID.
925 004502 177777      ; .WORD -1.
926 004504 177777      ; .WORD -1.
927      ;
928 004506 052510      UHLHDR: .WORD "HU.      ; UHL SUBFILE HEADER.
929 004510 041461      HRLHDR: .WORD "1C.      ; HRL FILE HEADER RECORD.
930 004512 000000      ; .WORD 0.      ; PAD WORD.
931 004514 140000      EODFLG: .WORD BIT15:BIT14      ; END OF DATA SENTINEL.
932 004516 040000      EOBFLG: .WORD BIT14      ; END OF BUFFER SENTINEL.
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
934      .SBTTL- FILE STRUCTURES-
935      :
936      :
937      :
938      : I/O CONTROL BLOCK-- UHL FILE-
939      : IOCB1:
940      : .BLKW 2:
941      : .WORD FDB1
942      : .BYTE 1
943      : .BYTE BUFRD-
944      : .BLKW 1
945      : .WORD 0
946      : .BYTE BDB1-BDB-
947      : .BYTE 0
948      : .BYTE BDB1-BDB-
949      : .BYTE 0
950      : .BYTE BDB1-BDB-
951      : .BYTE BDB2-BDB-
952      :
953      :
954      : I/O CONTROL BLOCK-- HRL FILE INPUT-
955      : IOCB2:
956      : .BLKW 2:
957      : .WORD FDB2
958      : .BYTE 2:
959      : .BYTE BUFRD!BUFRAP-
960      : .BLKW 1
961      : .WORD 0
962      : .WORD BDB3-BDB-
963      : .WORD BDB3-BDB-
964      : .WORD BDB3-BDB-
965      : .BYTE BDB3-BDB-
966      : .BYTE BDB4-BDB-
967      :
968      :
969      : I/O CONTROL BLOCK BLOCK-- HRL FILE OUTPUT-
970      : IOCB3:
971      : .BLKW 2:
972      : .WORD FDB2
973      : .BYTE 3
974      : .BYTE BUFR!BUFRAP-
975      : .BLKW 1
976      : .WORD 0
977      : .WORD BDB5-BDB-
978      : .WORD BDB5-BDB-
979      : .WORD BDB5-BDB-
980      : .BYTE BDB5-BDB-
981      : .BYTE BDB6-BDB-

: IOST BLOCK-
: FDB ADDRESS-
: EVENT FLAG- 1
: READ/NO WRAP AROUND
: CURRENT LOGICAL BLOCK-
: LAST LOGICAL BLOCK-
: ADDRESS OF BUFFER IN USE-
: INDEX TO INITIAL ASSIGN BDB-
: INITIALLY UNASSIGNABLE-
: INDEX TO INITIAL I/O BDB-
: INITIALLY UNASSIGNABLE-
: INDEX TO FILE'S FIRST BDB-
: INDEX TO FILE'S LAST BDB-

: IOST BLOCK-
: FDB ADDRESS-
: EVENT FLAG- 2
: READ WITH WRAP AROUND-
: CURRENT LOGICAL BLOCK-
: LAST LOGICAL BLOCK-
: ADDRESS OF BUFFER IN USE-
: INDEX TO INITIAL ASSIGN BDB-
: INDEX TO INITIAL I/O BDB-
: INDEX TO FILE'S FIRST BDB-
: INDEX TO FILE'S LAST BDB-

: IOST BLOCK-
: FDB ADDRESS-
: EVENT FLAG- 3
: WRITE WITH WRAP AROUND-
: CURRENT LOGICAL BLOCK-
: LAST LOGICAL BLOCK-
: ADDRESS OF BUFFER IN USE-
: INDEX TO INITIAL ASSIGN BDB-
: INDEX TO INITIAL I/O BDB-
: INDEX TO FILE'S FIRST BDB-
: INDEX TO FILE'S LAST BDB-
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

983      ; FILE-DEFINITION-BLOCKS
984      ;
985      ; UHL-FILE
986      ;
987 004614 FDB1: FDBDF$
988 004754 FDRCS$A: FD,RWM:
989 004754 FDBK$A: ,2*N,BUFW,,1,IOCB1
990 004754 FDOP$A: 1
991      ;
992      ; HRL-FILE
993      ;
994 004754 FDB2: FDBDF$
995 005114 FDRCS$A: FD,RWM:
996 005114 FDBK$A: ,2*N,BUFW,,2,IOCB2
997 005114 FDOP$A: 2
998      ;
999 005114 FSRSZ$ 0
1000      ;
1001      ; BUFFER-DEFINITION-BLOCK-ADDRESS-VECTOR
1002      ;
1003 005114 BDB:
1004 005114 005130' BDB1: .WORD: BUF1
1005 005116 011130' BDB2: .WORD: BUF2
1006 005120 015130' BDB3: .WORD: BUF3
1007 005122 021130' BDB4: .WORD: BUF4
1008 005124 025130' BDB5: .WORD: BUF5
1009 005126 031130' BDB6: .WORD: BUF6
1010      ;
1011      ; I/O-BUFFERS
1012      ;
1013 005130 BUF1: .BLKW: N,BUFW
1014 011130 BUF2: .BLKW: N,BUFW
1015 015130 BUF3: .BLKW: N,BUFW
1016 021130 BUF4: .BLKW: N,BUFW
1017 025130 BUF5: .BLKW: N,BUFW
1018 031130 BUF6: .BLKW: N,BUFW
1019      ;
1020      .END: HRLMRG:
000000'
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

ABRTFL- 004464R	015	BYTE4 - 000004	010	DN.SIZ- 000010	005	F.CNTG- 000034	HRLOUT- 004450R
ASTX- 002720R		BYTES - 000005	010	DN.FLG- 000006	005	F.DFNB- 000046	IBDB- 000022
ATTR- 000007		015	010	DIREPR- 003616R		F.DSPT- 000044	IE.EOF- 000000
BCHNO- 004374R		BYTE7 - 000007	010	DN.DCK- 000000	013	F.DVNM- 000134	IOCB1- 004520R
BDB- 005114R		BYTE8 - 000010	010	DN.NTP- 000004	013	F.EFBK- 000010	IOCB2- 004544R
BDB1- 005114R		BYTE9 - 000011	010	DN.NXT- 000006	013	F.EFN- 000050	IOCB3- 004570R
BDB2- 005116R		BYTVAL- 000012	010	DN.ROT- 000002	013	F.EOBB- 000032	IOST- 000000
BDB3- 005120R		B.BSTA 000054	010	DN.SIZ- 000010	013	F.ERR- 000052	LBDB- 000022
BDB4- 005122R		B.CNTX 000046	010	EOBFLG- 004516R		F.FACC- 000043	LBLK- 000012
BDB5- 005124R		B.CQUO 000060	010	EODFLG- 004514R		F.FFBY- 000014	LND- 004325R
BDB6- 005126R		B.FEMA 000132	010	EOFDGC- 004500R		F.FNAM- 000110	LNDE- 004365R
BITVAL- 000000		B.FEMB 000142	010	EOHRL- 004434R		F.FNB- 000102	LN0- 003714R
BIT0- 000001		B.FEMC 000152	010	ERRX- 003512R	015	F.FTYP- 000116	LN0E- 003760R
BIT1- 000002		B.FFSA 000202	010	EVNT- 000006	015	F.FVER- 000120	LN1- 003760R
BIT10- 002000		B.FFSB 000212	010	FDBAD- 000004	015	F.HIBK- 000004	LN1E- 004014R
BIT11- 004000		B.FFSC 000222	010	FDB1- 004514R		F.LUN- 000042	LN2- 004014R
BIT12- 010000		B.FFMR 000172	010	FDB2- 004754R		F.MBCT- 000054	LN2E- 004055R
BIT13- 020000		B.FOLS 000162	010	FDBL- 004432R		F.MBC1- 000055	LN3- 004055R
BIT14- 040000		B.FSAZ 000100	010	FD.FID- 000000	003	F.MBFG- 000056	LN3E- 004125R
BIT15- 100000		B.FSBZ 000102	010	FD.FNB- 000006	003	F.NRBD- 000024	LN4- 004125R
BIT2- 000004		B.FSCZ 000104	010	FD.FVR- 000004	003	F.NREC- 000030	LN4E- 004207R
BIT3- 000010		B.HBLK 000120	010	FD.LEN- 000010	003	F.OVBS- 000030	LN5- 004207R
BIT4- 000020		B.HDOC 000114	010	FD.RUM- 000000 GX		F.RACC- 000016	LN5E- 004243R
BIT5- 000040		B.HRLP 000126	010	FN.DBS- 000026	011	F.RATT- 000001	LN6- 004243R
BIT6- 000100		B.HRLR 000122	010	FN.DHR- 000040	011	F.PCHM- 000034	LN6E- 004325R
BIT7- 000200		B.HRLW 000124	010	FN.EMA- 000012	011	F.RCTL- 000017	LOCORY- 001214R
BIT8- 000400		B.HMRB 000052	010	FN.EMB- 000014	011	F.RSIZ- 000002	LOCXIT- 001336R
BIT9- 001000		B.NORY 000232	010	FN.EMC- 000016	011	F.RTYP- 000000	M- 000062
BLDEFL- 000000 GX		B.QLSZ 000106	010	FN.FSA- 000000	011	F.SEON- 000100	MRGDEQ- 000440R
BLDNFL- 000000 GX		B.QMAP 000234	010	FN.FSB- 000002	011	F.SPDI- 000072	MRGDTG- 000574R
BSTADR- 004424R		B.QSPL 000316	010	FN.FSC- 000004	011	F.SPUN- 000074	MRGDLT- 000550R
BSTPTR- 000000 GX		B.QTTM 000076	010	FN.LGC- 000034	011	F.STBK- 000036	MSGD- 003710R
BS.CLS- 000002		B.QUQP 000056	010	FN.LGU- 000036	011	F.UNIT- 000136	MSGDUT- 000000 GX
BS.DBU- 000004		B.SFDB 000010	010	FN.MFO- 000024	011	F.URBD- 000020	MSGPAR- 004400R
BS.INA- 000000		B.SIZE 000772	010	FN.MHR- 000010	011	F.VBN- 000064	MSG0- 003654R
BS.OPN- 000001		B.SNDP 000012	010	FN.NHB- 000044	011	F.VBSZ- 000060	MSG1- 003660R
BS.SPC- 000003		B.SSQF 000050	010	FN.OLS- 000006	011	GETBUF- 002570R	MSG2- 003664R
BUFEOP- 000040		B.STAT 000044	010	FN.QRY- 000020	011	GETCMD- 000004R	MSG3- 003670R
BUFI0- 003104R		B.STTE 000053	010	FN.SFO- 000030	011	GETFRE- 000000 GX	MSG4- 003674R
BUFI0X- 003604R		B.UDOC 000110	010	FN.SFI- 000032	011	GTBLK- 003066R	MSG5- 003700R
BUFI0K- 000001		CBLK- 000010	015	FN.SHD- 000042	011	HDCC- 004476R	MSG6- 003704R
BUFI0PN- 000200		CBUF- 000014	015	FO.MFY- 000000 GX	011	HGET- 002100R	N- 000002
BUFI0Q- 003242R		CF.B0 - 000070	015	FO.RD- 000000 GX		HGETX- 002244R	NBUHL- 004426R
BUFRAP- 000020		CF.B2 - 000067		FO.WRT- 000000 GX		HLABRT- 000642R	NXTG- 000015
BUFRD- 000004		CF.B4 - 000066		F.ACTL- 000076		HLINIT- 001342R	NXTR- 000020
BUFRW- 000010		CF.B6 - 000065		F.ALDC- 000040		HLMERG- 000164R	N.BFAC- 000004
BUFXIT- 002714R		CF.DR0- 000064		F.BBFS- 000062		HLMERX- 000436R	N.BHGH- 000005
BUF1- 005130R		CF.DR1- 000063		F.BDB- 000070		HLNITX- 001756R	N.BTCH- 000004
BUF2- 011130R		CMDLST 000114R		F.BGBC- 000057		HLPRBX- 001212R	N.BUFB- 004000
BUF3- 015130R		CMDTAB 000104R		F.BKDN- 000026		HLPROB- 000724R	N.BUFW- 002000
BUF4- 021130R		CMDX- 004373R		F.BKDS- 000020		HLTERM- 000626R	N.DID- 000024
BUF5- 025130R		DBSLEN- 000116		F.BKEF- 000050		HPUT- 002424R	N.DVNM- 000032
BUF6- 031130R		DCNT- 004462R		F.BKP1- 000051		HRLCHT- 004452R	N.FID- 000000
BYTE0- 000000		DH.BF0 000002	005	F.BKST- 000024		HRLHMR- 004510R	N.FNAM- 000006
BYTE1- 000001		DH.BF1 000004	005	F.BKVB- 000064		HRLMRG- 000000	N.FOBS- 000004
BYTE2- 000002		DH.CTL 000000	005	F.CHR- 000075		HRLNTH- 000612R	N.FTYP- 000014
BYTE3- 000003						HRLNXT- 004466R	N.FVER- 000016

N: NEXT= 000022	SR: DAY 000010	002: SS: STT= 000000	004 S: HRL= 000240	XBATCH= 000013
N: PKSZ= 000020	SR: DLT 000014	002: STUHL= 004430R	S: NFEN= 000020	XDBLOA= 000004
N: PKTS= 000043	SR: ECB 000047	002: ST: ASZ= 000020	006 UDOC= 004456R	XDBPRO= 000012
N: QURY= 000031	SR: ECH 000046	002: ST: BSZ= 000024	006 UGET= 002246R	XDMC (H= 000006
N: STAT= 000020	SR: ECL 000050	002: ST: BTC= 000000	006 UHLCT= 004436R	XFOGMR= 000007
N: SUNT= 000002	SP: FIB 000012	002: ST: CSZ= 000030	006 UHLHDR= 004506R	XGTSRE= 000014
N: UNIT= 000034	SR: GRE 000100	002: ST: HRL= 000010	006 UHLNXT= 004440R	XHITSK= 000011
PAR\$\$\$= 000061	SR: GRS 000072	002: ST: LEN= 000044	006 UHLSAV= 004442R	XHLMER= 000002
PAR1 004400R	SR: LEN 000122	002: ST: QRY= 000002	006 UHLUD= 004444R	XHOTSX= 000010
PAR2 004402R	SR: LIN 000066	002: ST: QSZ= 000034	006 ULINIT= 001762R	XHSCH= 000000
PAR3 004404R	SR: LIP 000062	002: ST: SCH= 000040	006 ULNITX= 002076R	XQTS = 000003
PGMID= 004372R	SR: MON 000006	002: ST: UHL= 000004	006 UN: NTP= 000004	012: XQTS = 000001
PGMKIT= 000156R	SR: NDC 000042	002: ST: XLT= 000014	006 UN: NXT= 000006	012: XSULO= 000005
PUTSSQ= 000000 GX	SR: NDS 000036	002: SU: DBU= 000004	UN: ROT= 000002	012: \$DSW = 000000 GX
QCOUNT= 004454R	SR: NIN 000030	002: SU: DON= 000006	UN: SZ= 000010	012: \$\$\$ = 000000
QE: ROI= 000144	SR: NIP 000022	002: SU: IDL= 000000	UN: SRC= 000000	012: \$\$\$OST= 000010
QRYID= 004376R	SR: SDB 000032	002: SU: LOD= 000001	UN: TYP= 000001	012: \$\$\$TI= 000000
Q: FDSC= 000004	007 SR: SRC 000002	002: SU: SRC= 000002	WORD0 = 000000	.CLOSE= 000000 G
Q: HQBK= 000000	007 SR: SUN 000000	002: SU: SRR= 000005	WORD1 = 000002	.DLFNB= 000000 GX
Q: NUHL= 000002	007 SR: TWS 000056	002: SU: XPD= 000003	WORD2 = 000004	.FINIT= 000000 G
Q: SIZE= 000014	007 SR: WSL 000052	002: S: BFHD= 000020	WORD3 = 000006	.FOPCB= 000000 G
RCVB= 004366R	SR: YR= 000004	002: S: FATT= 000016	WORD4 = 000010	.OPFNB= 000000 G
RELBUP= 002646R	SR: IIN 000024	002: S: FDB= 000140	WORD5 = 000012	.READ= 000000 G
R: VYBA= 000006	SR: IIP 000016	002: S: FNAM= 000006	WORD6 = 000014	.WAIT= 000000 G
R: VYTH= 000002	SS: FID 000002	004 S: FNB= 000036	WORD7 = 000016	.WRITE= 000000 G
RISAV= 004460R	SS: FNB 000010	004 S: FNBW= 000017	WORD8 = 000020	...PC1= 004754R
SCOUNT= 004456R	SS: FYR 000006	004 S: FNTY= 000004	WORD9 = 000022	...PC2= 005114R
SR: ARE= 000114	002: SS: LEN 000012	004 S: FTYP= 000002	WRDVAL= 000024	...TPC= 000020
SR: ARS= 000106	002			
. ABS. 000000 000				
. 035130 001				
SRCOFF= 000122 002				
FDSCOF= 000010 003				
SUSOFF= 000012 004				
DHROFF= 000012 005				
STTOFF= 000044 006				
QSPLDF= 000014 007				
BSTOFF= 000772 010				
FNOFFS= 000044 011				
WNODOF= 000010 012				
DNODOF= 000010 013				
\$DPB\$\$= 000010 014				
IOCBDF= 000024 015				
\$\$FSR1 000000 016				
ERRORS DETECTED: 0				

VIRTUAL MEMORY USED: 7132 WORDS (28 PAGES)
 DYNAMIC MEMORY: 8084 WORDS (31 PAGES)
 ELAPSED TIME: 00:01:14
 HLMERG, HLMERG/SP=C20, 1JP, M, HLMERG

FOSMRG-PROGRAM: MACRO: M1110 27-MAR-80 13:28
TABLE OF CONTENTS:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

11-	20	FOSMRG-EXECUTABLE-CODE
15-	174	ERROR-HANDLING-ROUTINE
16-	223	DATA-STORAGE-FIELDS-AND-VARIABLES
17-	239	FILE-STRUCTURES-AND-RECORD-BUFFERS

```
1      .TITLE FOSMRG PROGRAM
2
3      ;
4      ; THE FOSMRG PROGRAM SUMS THE FLU OCCURRENCE COUNTERS RECEIVED FROM
5      ; EACH OF THE SEARCH UNITS. THE INPUT FILES ARE ACCESSED SUCCESSIVELY
6      ; ONE AT A TIME, THROUGH THE SEARCH STATUS TABLE. THE FDSC OF THE
7      ; OUTPUT FILE IS QUEUED TO HOTSX AND ALSO, MSCHED IS ACKNOWLEDGED WITH
8      ; AN ACK1 IN THE SSQ.
9
10     ; FOSMRG CAN HANDLE AN ARBITRARY NUMBER OF SEARCH UNITS, SUBJECT TO
11     ; THESE TWO RESTRICTIONS: THE SEARCH UNIT STATUS ENTRIES ARE STORED
12     ; CONTIGUOUSLY STARTING AT BASE ADDRESS SUST. (A GLOBAL SYMBOL). ALSO,
13     ; THE NUMBER OF SEARCH UNITS IN THE SYSTEM IS DEFINED BY THE SYMBOL
14     ; N.SUNT.
15
16     .MCALL EXIT$,RCVX$,SDAT$,RSUM$C.
17     .MCALL FINIT$,FDBDF$,FDRCA$,FDBK$,FDBP$,FDRSZ$,FDRSZ$.
18     .MCALL FDBK$,FDAT$,OFNB$,OFNB$,READ$,WRITE$,WAIT$,CLOSE$.
19     .RADIX 10
```

000012.

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

20      .SBTTL: FOSMRG: EXECUTABLE CODE.
21 000000      FOSMRG: FINIT$
22 000000      FOS.10:
23 000004      RCVN$C: ,RCVIN.
24 000004      BCC: FOS.15
25 000012 103004      CALL: DIRERR.
26 000014      JMP: FOS.90
27 000020 000167 000614      FOS.15:
28 000024      MOV: #FDBIN,R0      :FDB ADDRESS.
29 000024 012700 001300*      MOV: FDSCAD,R1      :FDS: ADDRESS OF CURRENT S.U.
30 000030 016701 001230      CALL: BLDFL.      :BUILD FILE NAME BLOCK IN FDB
31 000034
32
33
34
35
36 000040      OPEN THE INPUT FILE. - IF OPEN FAILS, REPORT NON-EXISTENCE OF FOS.
37 000056 103003      VIA MSGQUIT AND GO ON TO THE NEXT INPUT FOS
38 000060
39 000064 000454      OFNB$R: #FDBIN.
40 000066      BCC: FOS.20      : IF OPEN OK, DO THE READ.
41 000066      CALL: FCSERR.      :REPORT NON-EXISTENT S.U. FOS.
42 000076      BR: FOS.50      :SET UP NEXT INPUT FOS FILE.
43 000106 103003      FOS.20:
44 000110      READ$ #FDBIN.      :READ THE INPUT FOS FILE.
45 000114 000440      WAIT$ #FDBIN.
46 000116      BCC: FOS.30      : IF OK, DO THE ACCUMULATION LOGIC.
47 000116 012700 001300*      CALL: FCSERR.      :REPORT FOS READ ERROR.
48 000122      BR: FOS.50      :SET UP NEXT INPUT FOS FILE.
49 000126 005267 001136      FOS.30:
50 000132 005767 001130      MOV: #FDBIN,R0      :FDB ADDRESS.
51 000136 001014      CALL: .DLFNB.      :CLOSE AND DELETE THE INPUT FOS FILE.
52 000140 012767 005652* 001120      INC: FOSCNT.      :BUMP COUNT OF FOSSILS IN SUMMARY.
53 000146      TST: FOSBIN.      :IS THIS THE FIRST INPUT FOS FILE?
54 000160 116767 001434 001470      BNE: FOS.40      :BRANCH IF NOT.
55 000166 000413      MOV: #FOS1,FOSBIN.      :LOAD INCREMENTAL BUFFER ADDRESS.
56      FDBK$R: #FDBIN,FOSBIN.      :HAVE FCS SWITCH INPUT BUFFERS
57      MOV: BCHO,FOS0+4      :INITIALIZE FOS HEADER WITH BATCH NO.
58      BR: FOS.50
59
60
61 000170      ACCUMULATE THE FLU OCCURRENCES FROM INCREMENTAL BUFFER (FOS1)
62 000170 012703 001660*      INTO THE SUMMARY BUFFER (FOS0)
63 000174 012704 005662*      FOS.40:
64 000200 012302      MOV: #FOS0+6,R3      :INITIALIZE OUTPUT FOS POINTER
65 000204 003002      MOV: #FOS1+8,R4      :INITIALIZE INPUT FOS POINTER.
66 000210      MOV: (R3)+,R2.      :GET QUERY COUNT.
67 000210      BGT: 10$      :BRANCH IF ANY QUERIES.
68 000214 077203      CALL: SUM.10      :REPORT BAD STRUCTURE AND ABORT THIS FOS
69      SOB: R2,10$
70
71 000216      10$:
72 000224 026767 001036 001036      CALL: FOSSUM.      :ACCUMULATE FOS FOR A QUERY.
73 000226 005267 001026      SOB: R2,10$      :NEXT QUERY.
74 000232 062767 000012 001024      FOS.50:
75 000240 000671      CMP: CSUN,LSUN.      :HAS LAST S.U. JUST BEEN PROCESSED?
76      BGE: FOS.60      :IF SO, OUTPUT ACCUMULATED FOS.
77      INC: CSUN      :UPDATE CURRENT SEARCH UNIT.
78      ADD: #10,FDSCAD.      :UPDATE POINTER TO ITS FDS:
79      BR: FOS.15      :PROCESS NEXT INPUT FILE.

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

77      ;
78      ;
79      ; SUBROUTINE TO MERGE FOS COUNTERS FOR A SPECIFIC QUERY.
80      ; FROM AN INPUT SEARCH UNIT INTO THE CUMULATIVE FOS COUNTERS.
81      ; AT ENTRY (R3) -> QUERY ID FIELD (BEGINNING WORD) OF OUTPUT FOS
82      ; (R4) -> QUERY ID FIELD (BEGINNING WORD) OF INPUT FOS
83      ; AT EXIT, BOTH R3 AND R4 ARE UPDATED TO POINT TO THE NEXT ENTRY.
84      ;
85      ;
86      ;
87      ;
88      ;
89      ;
90      ;
91      ;
92      ;
93      ;
94      ;
95      ;
96      ;
97      ;
98      ;
99      ;
100     ;
101     ;
102     ;
103     ;
104     ;
105     ;
106     ;
107     ;
108     ;
109     ;
110     ;
111     ;
112     ;
113     ;
114     ;
115     ;
116     ;
117     ;
118     ;
119     ;
120     ;
121     ;
122     ;
123     ;
124     ;
125     ;
126     ;
127     ;
128     ;
129     ;
130     ;
131     ;
132     ;
133     ;
134     ;
135     ;
136     ;
137     ;
138     ;
139     ;
140     ;
141     ;
142     ;
143     ;
144     ;
145     ;
146     ;
147     ;
148     ;
149     ;
150     ;
151     ;
152     ;
153     ;
154     ;
155     ;
156     ;
157     ;
158     ;
159     ;
160     ;
161     ;
162     ;
163     ;
164     ;
165     ;
166     ;
167     ;
168     ;
169     ;
170     ;
171     ;
172     ;
173     ;
174     ;
175     ;
176     ;
177     ;
178     ;
179     ;
180     ;
181     ;
182     ;
183     ;
184     ;
185     ;
186     ;
187     ;
188     ;
189     ;
190     ;
191     ;
192     ;
193     ;
194     ;
195     ;
196     ;
197     ;
198     ;
199     ;
200     ;
201     ;
202     ;
203     ;
204     ;
205     ;
206     ;
207     ;
208     ;
209     ;
210     ;
211     ;
212     ;
213     ;
214     ;
215     ;
216     ;
217     ;
218     ;
219     ;
220     ;
221     ;
222     ;
223     ;
224     ;
225     ;
226     ;
227     ;
228     ;
229     ;
230     ;
231     ;
232     ;
233     ;
234     ;
235     ;
236     ;
237     ;
238     ;
239     ;
240     ;
241     ;
242     ;
243     ;
244     ;
245     ;
246     ;
247     ;
248     ;
249     ;
250     ;
251     ;
252     ;
253     ;
254     ;
255     ;
256     ;
257     ;
258     ;
259     ;
260     ;
261     ;
262     ;
263     ;
264     ;
265     ;
266     ;
267     ;
268     ;
269     ;
270     ;
271     ;
272     ;
273     ;
274     ;
275     ;
276     ;
277     ;
278     ;
279     ;
280     ;
281     ;
282     ;
283     ;
284     ;
285     ;
286     ;
287     ;
288     ;
289     ;
290     ;
291     ;
292     ;
293     ;
294     ;
295     ;
296     ;
297     ;
298     ;
299     ;
300     ;
301     ;
302     ;
303     ;
304     ;
305     ;
306     ;
307     ;
308     ;
309     ;
310     ;
311     ;
312     ;
313     ;
314     ;
315     ;
316     ;
317     ;
318     ;
319     ;
320     ;
321     ;
322     ;
323     ;
324     ;
325     ;
326     ;
327     ;
328     ;
329     ;
330     ;
331     ;
332     ;
333     ;
334     ;
335     ;
336     ;
337     ;
338     ;
339     ;
340     ;
341     ;
342     ;
343     ;
344     ;
345     ;
346     ;
347     ;
348     ;
349     ;
350     ;
351     ;
352     ;
353     ;
354     ;
355     ;
356     ;
357     ;
358     ;
359     ;
360     ;
361     ;
362     ;
363     ;
364     ;
365     ;
366     ;
367     ;
368     ;
369     ;
370     ;
371     ;
372     ;
373     ;
374     ;
375     ;
376     ;
377     ;
378     ;
379     ;
380     ;
381     ;
382     ;
383     ;
384     ;
385     ;
386     ;
387     ;
388     ;
389     ;
390     ;
391     ;
392     ;
393     ;
394     ;
395     ;
396     ;
397     ;
398     ;
399     ;
400     ;
401     ;
402     ;
403     ;
404     ;
405     ;
406     ;
407     ;
408     ;
409     ;
410     ;
411     ;
412     ;
413     ;
414     ;
415     ;
416     ;
417     ;
418     ;
419     ;
420     ;
421     ;
422     ;
423     ;
424     ;
425     ;
426     ;
427     ;
428     ;
429     ;
430     ;
431     ;
432     ;
433     ;
434     ;
435     ;
436     ;
437     ;
438     ;
439     ;
440     ;
441     ;
442     ;
443     ;
444     ;
445     ;
446     ;
447     ;
448     ;
449     ;
450     ;
451     ;
452     ;
453     ;
454     ;
455     ;
456     ;
457     ;
458     ;
459     ;
460     ;
461     ;
462     ;
463     ;
464     ;
465     ;
466     ;
467     ;
468     ;
469     ;
470     ;
471     ;
472     ;
473     ;
474     ;
475     ;
476     ;
477     ;
478     ;
479     ;
480     ;
481     ;
482     ;
483     ;
484     ;
485     ;
486     ;
487     ;
488     ;
489     ;
490     ;
491     ;
492     ;
493     ;
494     ;
495     ;
496     ;
497     ;
498     ;
499     ;
500     ;
501     ;
502     ;
503     ;
504     ;
505     ;
506     ;
507     ;
508     ;
509     ;
510     ;
511     ;
512     ;
513     ;
514     ;
515     ;
516     ;
517     ;
518     ;
519     ;
520     ;
521     ;
522     ;
523     ;
524     ;
525     ;
526     ;
527     ;
528     ;
529     ;
530     ;
531     ;
532     ;
533     ;
534     ;
535     ;
536     ;
537     ;
538     ;
539     ;
540     ;
541     ;
542     ;
543     ;
544     ;
545     ;
546     ;
547     ;
548     ;
549     ;
550     ;
551     ;
552     ;
553     ;
554     ;
555     ;
556     ;
557     ;
558     ;
559     ;
560     ;
561     ;
562     ;
563     ;
564     ;
565     ;
566     ;
567     ;
568     ;
569     ;
570     ;
571     ;
572     ;
573     ;
574     ;
575     ;
576     ;
577     ;
578     ;
579     ;
580     ;
581     ;
582     ;
583     ;
584     ;
585     ;
586     ;
587     ;
588     ;
589     ;
590     ;
591     ;
592     ;
593     ;
594     ;
595     ;
596     ;
597     ;
598     ;
599     ;
600     ;
601     ;
602     ;
603     ;
604     ;
605     ;
606     ;
607     ;
608     ;
609     ;
610     ;
611     ;
612     ;
613     ;
614     ;
615     ;
616     ;
617     ;
618     ;
619     ;
620     ;
621     ;
622     ;
623     ;
624     ;
625     ;
626     ;
627     ;
628     ;
629     ;
630     ;
631     ;
632     ;
633     ;
634     ;
635     ;
636     ;
637     ;
638     ;
639     ;
640     ;
641     ;
642     ;
643     ;
644     ;
645     ;
646     ;
647     ;
648     ;
649     ;
650     ;
651     ;
652     ;
653     ;
654     ;
655     ;
656     ;
657     ;
658     ;
659     ;
660     ;
661     ;
662     ;
663     ;
664     ;
665     ;
666     ;
667     ;
668     ;
669     ;
670     ;
671     ;
672     ;
673     ;
674     ;
675     ;
676     ;
677     ;
678     ;
679     ;
680     ;
681     ;
682     ;
683     ;
684     ;
685     ;
686     ;
687     ;
688     ;
689     ;
690     ;
691     ;
692     ;
693     ;
694     ;
695     ;
696     ;
697     ;
698     ;
699     ;
700     ;
701     ;
702     ;
703     ;
704     ;
705     ;
706     ;
707     ;
708     ;
709     ;
710     ;
711     ;
712     ;
713     ;
714     ;
715     ;
716     ;
717     ;
718     ;
719     ;
720     ;
721     ;
722     ;
723     ;
724     ;
725     ;
726     ;
727     ;
728     ;
729     ;
730     ;
731     ;
732     ;
733     ;
734     ;
735     ;
736     ;
737     ;
738     ;
739     ;
740     ;
741     ;
742     ;
743     ;
744     ;
745     ;
746     ;
747     ;
748     ;
749     ;
750     ;
751     ;
752     ;
753     ;
754     ;
755     ;
756     ;
757     ;
758     ;
759     ;
760     ;
761     ;
762     ;
763     ;
764     ;
765     ;
766     ;
767     ;
768     ;
769     ;
770     ;
771     ;
772     ;
773     ;
774     ;
775     ;
776     ;
777     ;
778     ;
779     ;
780     ;
781     ;
782     ;
783     ;
784     ;
785     ;
786     ;
787     ;
788     ;
789     ;
790     ;
791     ;
792     ;
793     ;
794     ;
795     ;
796     ;
797     ;
798     ;
799     ;
800     ;
801     ;
802     ;
803     ;
804     ;
805     ;
806     ;
807     ;
808     ;
809     ;
810     ;
811     ;
812     ;
813     ;
814     ;
815     ;
816     ;
817     ;
818     ;
819     ;
820     ;
821     ;
822     ;
823     ;
824     ;
825     ;
826     ;
827     ;
828     ;
829     ;
830     ;
831     ;
832     ;
833     ;
834     ;
835     ;
836     ;
837     ;
838     ;
839     ;
840     ;
841     ;
842     ;
843     ;
844     ;
845     ;
846     ;
847     ;
848     ;
849     ;
850     ;
851     ;
852     ;
853     ;
854     ;
855     ;
856     ;
857     ;
858     ;
859     ;
860     ;
861     ;
862     ;
863     ;
864     ;
865     ;
866     ;
867     ;
868     ;
869     ;
870     ;
871     ;
872     ;
873     ;
874     ;
875     ;
876     ;
877     ;
878     ;
879     ;
880     ;
881     ;
882     ;
883     ;
884     ;
885     ;
886     ;
887     ;
888     ;
889     ;
890     ;
891     ;
892     ;
893     ;
894     ;
895     ;
896     ;
897     ;
898     ;
899     ;
900     ;
901     ;
902     ;
903     ;
904     ;
905     ;
906     ;
907     ;
908     ;
909     ;
910     ;
911     ;
912     ;
913     ;
914     ;
915     ;
916     ;
917     ;
918     ;
919     ;
920     ;
921     ;
922     ;
923     ;
924     ;
925     ;
926     ;
927     ;
928     ;
929     ;
930     ;
931     ;
932     ;
933     ;
934     ;
935     ;
936     ;
937     ;
938     ;
939     ;
940     ;
941     ;
942     ;
943     ;
944     ;
945     ;
946     ;
947     ;
948     ;
949     ;
950     ;
951     ;
952     ;
953     ;
954     ;
955     ;
956     ;
957     ;
958     ;
959     ;
960     ;
961     ;
962     ;
963     ;
964     ;
965     ;
966     ;
967     ;
968     ;
969     ;
970     ;
971     ;
972     ;
973     ;
974     ;
975     ;
976     ;
977     ;
978     ;
979     ;
980     ;
981     ;
982     ;
983     ;
984     ;
985     ;
986     ;
987     ;
988     ;
989     ;
990     ;
991     ;
992     ;
993     ;
994     ;
995     ;
996     ;
997     ;
998     ;
999     ;
1000    ;

```

```

110      ;
111      ;
112      ; ALL FOS FILES FROM THE SEARCH UNITS NOW PROCESSED.
113      ; THE MERGED FOS WILL BE CHECKED FOR ANY OVERFLOW COUNTERS.
114      ; AND WILL THEN BE OUTPUT TO (7,4)FOS.MRG.
115      ;
115      FOS.60:
116      000342. 005767 000722      TST. FOSCNT.      ; ANY FOS REPORT AT ALL?
117      000346 001511      BEQ. FOS.70      ; IF NOT, TELL OPERATOR SAD TALE AND EXIT
118      000350 012702. 001660'      MOV. #FOS0+6,R2.      ; R2-> QUERY COUNT
119      000354 012203      MOV. (R2)+,R3      ; GET QUERY COUNT AND POINT TO FIRST ENTRY
120      000356      10$:
121      000356 005722.      TST. (R2)+      ; SKIP OVER QUERY ID
122      000360 012204      MOV. (R2)+,R4      ; GET FLU COUNT AND POINT TO FIRST COUNTER
123      000362.      20$:
124      000362. 032722. 177774      BIT. #0FLMSK,(R2)+      ; DID COUNTER OVERFLOW?
125      000366      BOFF. 30$      ; BRANCH IF NO
126      000370 012762. 000003 177776      MOV. #HIFOS,-2(R2)      ; SET HIGH ORDER WORD TO MAX VALUE
127      000376 012722. 177777      MOV. #-1,(R2)+      ; SET LOW ORDER WORD TO MAX VALUE
128      000402. 000401      BR. 40$
129      000404      30$:
130      000404 005722.      TST. (R2)+      ; POINT TO NEXT COUNTER
131      000406      40$:
132      000406 077413      SOB. R4,20$      ; NEXT COUNTER
133      000410 077316      SOB. R3,10$      ; NEXT QUERY
134      ;
135      ;
136      ; OUTPUT MERGED FOS FILE
137      000412. 012700 001440'      MOV. #FDBOUT,R0      ; FDB ADDRESS
138      000416 012701 000024      MOV. #FN,HFO,R1      ; FILE NUMBER
139      000422.      CALL. BLDNFL      ; BUILD FILE NAME BLOCK IN FDB
140      000426      FDBOUT. #FDBOUT,...,#+4      ; ALLOCATE 4 SECTORS
141      ;
142      000440      OFN0$W. #FDBOUT.
143      000456      WRITE$ #FDBOUT.
144      000466      WAIT$ #FDBOUT.
145      000476 103006      BCC. 50$
146      000500 012757 177777 000552.      MOV. #-1,C$UN.      ; MERGE FILE SIGNAL
147      000506      CALL. FCSERR.      ; OUTPUT ERROR MESSAGE
148      000512. 000427      BR. FOS.70      ; TO PROGRAM EXIT
149      000514      50$:
150      000514 016767 001022 000000C.      MOV. FDBOUT+F.FNB+N.FID,FDSC+FD.FID.
151      000522. 016767 001016 000000C.      MOV. FDBOUT+F.FNB+N.FID+2,FDSC+FD.FID+2
152      000530 016767 001024 000000C.      MOV. FDBOUT+F.FNB+N.FVER,FDSC+FD.FVR.
153      000536 012767 000024 000000C.      MOV. #FN,HFO,FDSC+FD.FNB.
154      000544      CLOSE$ #FDBOUT.
155      000554      SDAT$C. H0TSK,RCVB.
156      000562.      R$UM$C. H0TSK.      ; RESUME H0TSK
157      000570 000407      BR. FOS.80

```

FOSMRG PROGRAM MACRO M1110 27-MAR-80 13:28 PAGE 14
FOSMRG EXECUTABLE CODE

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

159 000572	FOS.70:		
160 000572		MOUT\$S #MSG3	; NO MERGE FILE PRODUCED
161	:		
162	:	PROGRAM EXIT POINT	
163	:		
164 000610	FOS.80:		
165 000610		CALL GETFRE	; GET PACKET FOR MSCHED ACK
166 000614 016762 001030 000002		MOV ACKSCH,2(R2)	; MOVE IN ACK MESSAGE
167 000622 005062 000004		CLR 4(R2)	
168 000626 116762 000766 000004		MOVB BCHNO,4(P2)	; MOVE IN BATCH NO
169 000634		CALL PUTSSQ	; ENTER PACKET IN THE SSQ
170 000640	FOS.90:		
171	:	MOUT\$S #MSG0	
172 000640	:	EXIT\$S	

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

174                                     .SBTTL: ERROR HANDLING ROUTINE.
175                                     .NLIST: BEX.
176                                     :
177                                     : DIRECTIVE ERROR.
178                                     :
179 000646 011667 000420 DIRERR: MOV. (SP),PAR1
180 000652 116700 000000 MOV. $DSJ,R0
181 000656 010067 000412 MOV. R0,PAR2
182 000662 MOUT$S: #MSG1,#PAR1
183 000702 000207 RETURN.
184
185                                     : FCS ERROR.
186                                     :
187 000704 011667 000362 FCSERR: MOV. (SP),PAR1
188 000710 016067 000052 MOV. F.ERR(R0),PAR2
189 000716 112767 000377 MOV. #255,PAR2+1
190 000724 016767 000330 MOV. CSUN,PAR3
191 000732 MOUT$S: #MSG2,#PAR1
192 000752 000207 RETURN.
193
194 000754                                     .PSECT.
195
196                                     : STRING DESCRIPTORS.
197                                     :
198 000754 000024 MSG0: .WORD LN0E-LN0
199 000756 001115 .WORD LN0
200 000760 000040 MSG1: .WORD LN1E-LN1
201 000762 001000 .WORD LN1
202 000764 000055 MSG2: .WORD LN2E-LN2
203 000766 001040 .WORD LN2
204 000770 000025 MSG3: .WORD LN3E-LN3
205 000772 001141 .WORD LN3
206 000774 000071 MSG4: .WORD LN4E-LN4
207 000776 001166 .WORD LN4
208
209                                     : FORMAT STRINGS.
210                                     :
211 001000 120 103 040 LN1: .ASCIIZ /PC=.%10, DIRECTIVE ERROR=.%1D/.
212 001040 LN1E:
213 001040 120 103 040 LN2: .ASCIIZ /PC=.%10, FCS ERROR=.%1D, SEARCH UNIT=.%1D/.
214 001115 LN2E:
215 001115 106 117 123 LN0: .ASCIIZ /FDSMRG-PROGRAM-EXIT/.
216 001141 LN0E:
217 001141 116 117 040 LN3: .ASCIIZ /NO OUTPUT-FOS REPORT/.
218 001166 LN3E:
219 001166 111 116 103 LN4: .ASCIIZ /INCOMPATIBLE-FOS-STRUCTURES, S.U.=.%1D, FOS-ENTRY=.%1D/.
220 001257 LN4E:
221                                     .EVEN.

```



```
223      .SBTTL DATA STORAGE FIELDS AND VARIABLES.
224      ;
225      HIFOS =- BIT0:BIT1
226      OFLMSK =- ^C<HIFOS>
227      ;
228 001260 000000 CSUN: .WORD 0 ;CURRENT SEARCH UNIT NUMBER
229 001262 000001 LSUN: .WORD N:SUNT-1 ;LAST SEARCH UNIT NUMBER
230 001264 000002 FDSCAD: .WORD SUST+2 ;CURRENT FDSC POINTER
231 001266 000000 FOSBIN: .WORD 0 ;INPUT BUFFER FLAG
232 001270 000000 FOSCNT: .WORD 0 ;COUNT OF INPUT FOSSILS
233      ;
234 001272 IOST: ;MSGOUT PARAMETER LIST
235 001272 000000 PAR1: .WORD 0
236 001274 000000 PAR2: .WORD 0
237 001276 000000 PAR3: .WORD 0
```

```

239                                     .SBTTL: FILE STRUCTURES AND RECORD BUFFERS
240                                     ;
241                                     ;
242                                     ;
243 001300 FDBIN: FDBDF$
244 001440 FDRCS$A: FD,RWM:
245 001440 FDBK$A: FOS0,2*N,BUFW,,1,I0ST:
246 001440 FDOP$A: 1
247                                     ;
248                                     ;
249                                     ;
250 001440 FDBOUT: FDBDF$
251 001600 FDRCS$A: FD,RWM:
252 001600 FDBK$A: FOS0,2*N,BUFW,,1,I0ST:
253 001600 FDOP$A: 1
254 001600 FSR$Z$ 0
255                                     .EVEN:
256                                     ;
257                                     ;
258                                     ;
259 001600 007 RCVB: .BYTE: 7 ;PROGRAM: ID:
260 001601 000 .BYTE: 0 ;FOS: FILE: INDICATOR:
261 001602 .FDSC: .BLKW: 4 ;FILE: DESCRIPTOR: AREA:
262                                     ;
263                                     ;
264                                     ;
265 001612 RCVIN:
266 001612 .BLKW: 3
267 001620 BCHND: .BLKW: 1
268 001622 .BLKW: 11
269                                     ;
270                                     ;
271                                     ;
272 001650 007 ACKSCH: .BYTE: 7 ;PROGRAM: ID:
273 001651 001 .BYTE: 1 ;TASK: COMPLETE:
274                                     ;
275                                     ;
276                                     ;
277 001652 FOS: .BLKW: N,BUFW: ;SUMMARY: BUFFER:
278 005652 FOS1: .BLKW: N,BUFW: ;INCREMENTAL: BUFFER:
279 000000 .END: FOSMRG:

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

ACKSCH-001650R	B.NORY 000232	010 FN.QLS-000006	011 F.RACC-000016	PAR1 001272R
BOHNO-001620R	B.QLSZ 000106	010 FN.QRY-000020	011 F.RATT-000001	PAR2 001274R
BITVAL-000000	B.QMAP 000234	010 FN.SF0 000030	011 F.RCNM-000034	PAR3 001276R
BIT0-000001	B.QSPL 000316	010 FN.SF1 000032	011 F.RCTL-000017	PUTSSQ-***** GX
BIT1-000002	B.QTTM 000076	010 FN.SHD-000042	011 F.RSIZ-000002	Q.E.R01-000144
BIT10-002000	B.QUQP 000056	010 FOSBIN-001266R	F.RTYP-000000	Q.FDSC 000004 007
BIT11-004000	B.SFDB 000010	010 FOSCNT-001270R	F.SEQN-000100	Q.NDBK 000000 007
BIT12-010000	B.SIZE 000772	010 FOSMRG-000000R	F.SPDV-000072	Q.NUHL 000002 007
BIT13-020000	B.SNDP 000012	010 FOSSUM-000242R	F.SPUN-000074	Q.SIZE 000014 007
BIT14-040000	B.SSQ-000004	010 FOS.10 000004R	F.STBK-000036	RCVB 001600R
BIT15-100000	B.SSQF 000050	010 FOS.15 000024R	F.UNIT-000136	RCVIN 001612R
BIT2-000004	B.STAT 000044	010 FOS.20 000066R	F.URBD-000020	R.SUTN-000002
BIT3-000010	B.STTE 000053	010 FOS.30 000116R	F.VBN-000064	R.VXBA-000006
BIT4-000020	B.UDDC 000110	010 FOS.40 000170R	F.VBSZ-000060	R.VXTN-000002
BIT5-000040	CF.B0-000070	FOS.50 000216R	GETFRE-***** GX	SR.ARE 000114 002
BIT6-000100	CF.B2-000067	FOS.60 000342R	HIFOS-000003	SR.APS 000106 002
BIT7-000200	CF.B4-000066	FOS.70 000572R	IOST-001272R	SR.DAY 000010 002
BIT8-000400	CF.B6-000065	FOS.80 000610R	LN0-001115R	SR.DLT 000014 002
BIT9-001000	CF.DR0-000064	FOS.90 000640R	LN0E-001141R	SR.ECB 000047 002
BLDEFL-***** GX	CF.DR1-000063	FOS0 001652R	LN1-001000R	SR.ECH 000046 002
BLDNFL-***** GX	CSUN-001260R	FOS1 005652R	LN1E-001040R	SR.ECL 000050 002
BS.CLS-000002	DBSLEN-000116	FO.RD-***** GX	LN2-001040R	SR.FIB 000012 002
BS.DBU-000004	DH.BF0 000002	FO.WRT-***** GX	LN2E-001115R	SR.GRE 000100 002
BS.INA-000000	DH.BF1 000004	F.ACTL-000076	LN3-001141R	SR.GRS 000072 002
BS.OPN-000001	DH.CTL 000000	F.ALDC-000040	LN3E-001166R	SR.LEN 000122 002
BS.SRC-000003	DH.DMC 000010	F.BBFS-000062	LN4-001166R	SR.LIN 000066 002
BYTE0-000000	DH.FLG 000006	F.BDB-000070	LN4E-001257R	SR.LTP 000062 002
BYTE1-000001	DIRERR 000646R	F.BGBC-000057	LSUN-001262R	SR.MON 000006 002
BYTE2-000002	DN.DCK 000000	013 F.BKDN-000026	M-000062	SR.NDC 000042 002
BYTE3-000003	DN.DTP 000004	013 F.BKDS-000020	MSGOUT-***** GX	SR.NDS 000036 002
BYTE4-000004	DN.NXT 000006	013 F.BKEF-000050	MSG0 000754R	SR.NIN 000030 002
BYTE5-000005	DN.ROT 000002	013 F.BKPI-000051	MSG1 000760R	SR.NIP 000022 002
BYTE6-000006	DN.SIZ 000010	013 F.BKST-000024	MSG2 000764R	SR.SDB 000032 002
BYTE7-000007	FCSERR 000704R	F.BKVB-000064	MSG3 000770R	SR.SRC 000002 002
BYTE8-000010	FDBIN 001300R	F.CHR-000075	MSG4 000774R	SR.SUN 000000 002
BYTE9-000011	FDBOUT 001440R	F.CNTG-000034	N-000002	SR.TWS 000056 002
BYTVAL-000012	FISC 001602R	F.DFTB-000046	N.BFAC-000004	SR.USL 000052 002
B.BSTA-000054	010 FDSACD 001264R	F.DSPT-000044	N.BHGH-000006	SR.YR 000004 002
B.CNTX-000046	010 FD.FID 000000	003 F.DVNM-000134	N.BTCH-000024	SE.1IN 000024 002
B.CQUO-000060	010 FD.FNB 000006	003 F.EFBK-000010	N.BUFB-000400	SR.1IP 000016 002
B.FEMA-000132	010 FD.FVR 000004	003 F.EFN-000050	N.BUFW-000200	SS.FID 000002 004
B.FEMB-000142	010 FD.LEN 000010	003 F.EOBB-000032	N.DID-000024	SS.FNB 000010 004
B.FEMC-000152	010 FD.RUM-***** GX	F.ERR-000052	N.DVNM-000032	SS.FVR 000006 004
B.FFSA-000202	010 FN.DBR 000026	011 F.FACC-000043	N.FID-000000	SS.LEN 000012 004
B.FFSB-000212	010 FN.DBS 000022	011 F.FFBY-000014	N.FOS-000764	SS.STT 000000 004
B.FFSC-000222	010 FN.DHR 000040	011 F.FNAM-000110	N.FTY-000014	ST.ASZ 000020 006
B.FMHR-000172	010 FN.EMA 000012	011 F.FNB-000102	N.FVER-000016	ST.BSZ 000024 006
B.FQLS-000162	010 FN.EMB 000014	011 F.FTYP-000116	N.NEXT-000022	ST.BTC 000000 006
B.FSAZ-000100	010 FN.EMC 000016	011 F.FVER-000120	N.PKSZ-000020	ST.CSZ 000030 006
B.FSFBZ-000102	010 FN.FSC 000000	011 F.HIBK-000004	N.PKTS-000043	ST.HRL 000010 006
B.FSCZ-000104	010 FN.FSB 000002	011 F.LUN-000042	N.QUERY-000031	ST.LEN 000044 006
B.HBLK-000120	010 FN.FSG 000004	011 F.MBCT-000054	N.STAT-000020	ST.ORY 000002 006
B.HDOC-000114	010 FN.LGO 000034	011 F.MBC1-000055	N.SUNT-000002	ST.OSZ 000034 006
B.HRLP-000126	010 FN.LGU 000036	011 F.MBFG-000056	N.SUNT-000002	ST.SCH 000040 006
B.HRLR-000122	010 FN.MFO 000024	011 F.NRBD-000024	N.SUNT-000002	ST.XLT 000014 006
B.HRLU-000124	010 FN.NHR 000010	011 F.NPEC-000030	OFLMSK-177774	SUM.10 000272R
B.NMBR-000052	010 FN.NMB 000044	011 F.OVBS-000030	PAR***-000027	

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

FOSMRG-PRG AM: MACRO-M1110 27-MAR-80 13:28 PAGE 17-2.

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

SUST. = -***** GX.	S.FNAM = 000006	WORD0 = 000000	XDBPRD = 000012	\$\$\$OST = 000006
SU.DBU = 000004	S.FNB = 000036	WORD1 = 000002	XDNCIN = 000006	\$\$\$T1 = 000005
SU.DDN = 000006	S.FNBW = 000017	WORD2 = 000004	XFOSMR = 000007	.CLOSE = ***** G.
SU.IDL = 000000	S.FNTY = 000004	WORD3 = 000006	XGTSRE = 000014	.DLFNB = ***** GX.
SU.LDI = 000001	S.FTYP = 000002	WORD4 = 000010	XHITSK = 000011	.FINIT = ***** G.
SU.SRC = 000002	S.HRL = 000240	WORD5 = 000012	XHLMER = 000002	.FSRCB = ***** G.
SU.SRF = 000005	S.HFEN = 000020	WORD6 = 000014	XHLSK = 000010	.OPFNB = ***** G.
SU.XPD = 000003	WN.NTP 000004	012-WORD7 = 000016	XMSCH = 000000	.READ = ***** G.
S.BFHD = 000020	WN.NXT 000006	012-WORD8 = 000020	XOTS = 000003	.WAIT = ***** G.
S.DABA = 000006	WN.ROT 000002	012-WORD9 = 000022	XOT0 = 000001	.WRITE = ***** G.
S.DAEF = 000010	WN.SIZ 000010	012-WRDVAL = 000024	XSULDA = 000005	...PC1 = 001400R.
S.DATH = 000002	WN.SRC 000000	012-XBATCH = 000013	\$DSW = ***** GX.	...PC2 = 001600R.
S.FATT = 000016	WN.TYP 000001	012-XDBLOA = 000004	\$\$\$ = 000022R.	014 ...TPC = 000020
S.FDB = 000140				

. ABS. 000000 000
 011652 001
 SRCOFF 000122 002
 FDSCOF 000010 003
 SUSOFF 000012 004
 DHROFF 000012 005
 STTOFF 000044 006
 QSPLOF 000014 007
 BSTOFF 000772 010
 FNOFFS 000044 011
 WNODOF 000010 012
 DNODOF 000010 013
 \$DPB\$\$ 000030 014
 \$\$\$SR1 000000 015
 ERRORS DETECTED: 0

VIRTUAL MEMORY USED: 6791 WORDS. (27 PAGES)
 DYNAMIC MEMORY: 8084 WORDS. (31 PAGES)
 ELAPSED TIME: 00:00:49
 FOSMRG.FOSMRG/SP=L20.1JP,M.FOSMRG.

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

GTSREC: M1110-M1110 27-MAR-80 13:25
TABLE OF CONTENTS

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

10- 2- REQUEST STATUS RECORD FROM SU
11- 40 GET PACKET, SEND DATA

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

1      .TITLE- GTSREC-
2      .SBTTL- REQUEST-STATUS RECORD-FROM-SU-
3
4
5      .MCALL- RCVX#C-
6      .MCALL- QIOW#S,MRKT#C,WTSE#C-
7
8
9      COLUN=6
10
11
12      EF,IO=1
13
14      : LOCAL-DATA-
15      RDATA: .BLKW- 2-      :RECEIVE-DATA-AREA-
16      .WORD- 0-      :COMMAND-
17      .WORD- 0-      :SU#-
18      .BLKW- 11-
19
20      :
21      IOSTAT: .BLKW- 2-      :I/O-STATUS-BLOCK-
22      XMLUN: .WORD- 1-      :LUN-1 =XM0
23      :LUN-2 =XM1
24
25      RQSTSR: .ASCII- /RS/      :REQUEST-STATUS-RECORD-DMC EXCHANGE-
26      .BLKB- N,BUF0-2-
27
28      :
29      : ERROR-MESSAGES-
30      ERR1: .WORD- ERR1L-
31      ERR1T: .ASCII- /GTSRECX: DMC-WRITE-FAILURE/-
32
33
34      ERR1L=-ERR1T-
35      .EVEN-
36
37      :
38      ERR2: .WORD- ERR2L-
39      ERR2T: .ASCII- /GTSRECX: LINK INL/-
40
41
42      ERR2L=-ERR2T-
43      .EVEN-
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58

```

000006					
000001					
000000	000000				
000004	000000				
000006	000000				
000010					
000036					
000042	000001				
000044	122	123			
000046					
004044	000032				
004046	107	124	123		
004051	122	105	103		
004054	130	072	040		
004057	104	115	103		
004052	040	127	122		
004065	111	124	105		
004070	040	106	101		
004073	111	114	125		
004076	122	105			
000032					
004100	000021				
004102	107	124	123		
004105	122	105	103		
004110	130	072	040		
004113	114	111	116		
004116	113	040	111		
004121	116	114			
000021					

GTSREC: M1110 27-MAR-80 13:25 PAGE 11
GET: PACKET SEND: DATA

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
40 .SBTTL: GET: PACKET, SEND: DATA
41
42 004124 :
43 004124 GTSREC:
44 RCVX$C: ,RDATA: : GET: PACKET
45
46 :
47 : SET: UP: LUN: FOR: UNIT: INDICATED: IN: RECEIVE: BUFFER
48 :
49 MRKT$C: EF: IO, 30, , 1 : WAIT: FOR: 30: TICKS:
50 WTSE$C: EF: IO:
51 MOV: RDATA+6, XMLUN:
52 ADD: #1, XMLUN:
53
54 : SEND: THE: EXCHANGE:
55
56 SNDDMC: QIOW$S: #IO, WLB, 0, XMLUN, #EF: IO, , #IOSTAT, , <#RQSTSR, #N, BUFB>
57 CMPB: #IS, SUC, IOSTAT : NEXT: PACKET: IF: SUCCES:
58 BEQ: GTSREC:
59 : DETERMINE: TYPE: OF: ERROR:
60 CMPB: #IE, CHR, IOSTAT
61 BEQ: LNKRST:
62 CMPB: #IE, DNR, IOSTAT
63 BEQ: LNKRST:
64 CMPB: #IE, TMO, IOSTAT
65 BEQ: LNKRST:
66 CMPB: #IE, ABO, IOSTAT
67 BEQ: LNKRST:
68 : UBRECOVERABLE: LINK: ERROR:
69 MOV: #ERR1, R0 : MESSAGE: TO: CONSOLE:
70 CALL: COOUT:
71 BR: GTSREC: : NEXT: PACKET:
72 : RECOVERABLE: LINK: ERROR:
73 LNKRST: MOV: #ERR2, R0 : MESSAGE: TO: CONSOLE:
74 CALL: COOUT:
75 MRKT$C: EF: IO, 60, , 1 : WAIT: FOR: OTHER: END: TO: RECOVER
76 WTSE$C: EF: IO:
77 BR: SNDDMC: : RE-SEND: EXCHANGE:
78
79 : SEND: MESSAGE: TO: CONSOLE:
80 COOUT: MOV: (R0)+, R1
81 MOVB: RDATA+6, 6(R0)
82 BISB: #60, 6(R0)
83 QIOW$S: #IO, WLB, #COLUN, #EF: IO, , , <R0, R1, #40>
84 RTS: PC:
85
86 :
87 :
88 .END: GTSREC:
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

BITVAL = 000000	B.HDOC 000114	010 FD.LEN 000010	003 Q.NDBK 000000	007 ST.SCH 000040	006
BIT0 = 000001	B.HRLP 000126	010 FN.DBR 000026	011 Q.NUHL 000002	007 ST.UHL 000004	006
BIT1 = 000002	B.HRLR 000122	010 FN.DBS 000022	011 Q.SIZE 000014	007 ST.XLT 000014	006
BIT10 = 002000	B.HRLW 000124	010 FN.DHR 000040	011 RDATA 000000R	SU.DBU = 000004	
BIT11 = 004000	B.NMBR 000052	010 FN.EMA 000012	011 RQSTSR 000044R	SU.DON = 000006	
BIT12 = 010000	B.NQRY 000232	010 FN.EMB 000014	011 R.VXBA 000006	SU.IDL = 000000	
BIT13 = 020000	B.QLSZ 000106	010 FN.ENC 000016	011 R.VXTN 000002	SU.LOD = 000001	
BIT14 = 040000	B.QMAP 000234	010 FN.FSA 000000	011 SNDDMC 004162R	SU.SRC = 000002	
BIT15 = 100000	B.QSPL 000316	010 FN.FSB 000002	011 SR.ARE 000114	002 SU.SRR = 000005	
BIT2 = 000004	B.QTTM 000076	010 FN.FSC 000004	011 SR.ARS 000106	002 SU.XPD = 000003	
BIT3 = 000010	B.QUQP 000056	010 FN.LGO 000034	011 SR.DAY 000010	002 S.HRL = 000240	
BIT4 = 000020	B.SFDB 000010	010 FN.LGU 000036	011 SR.DLT 000014	002 WN.NTP 000004	012
BIT5 = 000040	B.SIZE 000772	010 FN.MFO 000024	011 SR.ECB 000047	002 WN.NXT 000006	012
BIT6 = 000100	B.SNDP 000012	010 FN.MHR 000010	011 SR.ECH 000046	002 WN.ROT 000002	012
BIT7 = 000200	B.SSQ 000004	010 FN.NMB 000044	011 SR.ECL 000050	002 WN.SIZ 000010	012
BIT8 = 000400	B.SSQF 000050	010 FN.QLS 000006	011 SR.FIB 000012	002 WN.SRC 000000	012
BIT9 = 001000	B.STAT 000044	010 FN.ORY 000020	011 SR.GRE 000100	002 WN.TYP 000001	012
BS.CLS = 000002	B.STTE 000053	010 FN.SF0 000030	011 SR.GRS 000072	002 WORD0 = 000000	
BS.DBU = 000004	B.UDOC 000110	010 FN.SF1 000032	011 SR.LEN 000122	002 WORD1 = 000002	
BS.INA = 000000	CF.B0 = 000070	FN.SHD 000042	011 SR.LIN 000066	002 WORD2 = 000004	
BS.OPN = 000001	CF.B2 = 000067	GTSREC 004124R	SR.LIP 000062	002 WORD3 = 000006	
BS.SRC = 000003	CF.B4 = 000066	IE.ABO = ***** GX	SR.MON 000006	002 WORD4 = 000010	
BYTE0 = 000000	CF.B6 = 000065	IE.CNR = ***** GX	SR.NDC 000042	002 WORD5 = 000012	
BYTE1 = 000001	CF.DR0 = 000064	IE.DNR = ***** GX	SR.NDS 000036	002 WORD6 = 000014	
BYTE2 = 000002	CF.DR1 = 000063	IE.TMO = ***** GX	SR.NIN 000030	002 WORD7 = 000016	
BYTE3 = 000003	COUN = 000006	IOSTAT 000036R	SR.NIP 000022	002 WORD8 = 000020	
BYTE4 = 000004	COOUT 004344R	IO.WLB = ***** GX	SR.SDB 000032	002 WORD9 = 000022	
BYTE5 = 000005	DBSLEN = 000116	IS.SUC = ***** GX	SR.SRC 000002	002 WRDVAL = 000024	
BYTE6 = 000006	DH.BF0 000002	005 LNKST 004316R	SR.SUN 000000	002 W.TSEF = 000002	
BYTE7 = 000007	DH.BF1 000004	005 M = 000062	SR.TWS 000056	002 XBATCH = 000013	
BYTE8 = 000010	DH.CTL 000000	005 M.KTAE = 000010	SR.WSL 000052	002 XDBLOA = 000004	
BYTE9 = 000011	DH.DMC 000010	005 M.KTEF = 000002	SR.YR 000004	002 XDBPRO = 000012	
BYTVAL = 000012	DH.FLG 000006	005 M.KTMG = 000004	SR.IIN 000024	002 XDMCHN = 000006	
B.BSTA 000054	010 DN.DCK 000000	013 M.KTUN = 000006	SR.IIP 000016	002 XFOSMR = 000007	
B.CNTX 000046	010 DN.NTP 000004	013 N = 000002	SS.FID 000002	004 XGTSRE = 000014	
B.COQU 000060	010 DN.NXT 000006	013 N.BFAC = 000004	SS.FNB 000010	004 XHITSK = 000011	
B.FEMA 000132	010 DN.ROT 000002	013 N.BHGH = 000006	SS.FVR 000006	004 XHLMER = 000002	
B.FEMB 000142	010 DN.SIZ 000010	013 N.BTCH = 000004	SS.LEN 000012	004 XHOTSK = 000010	
B.FEMC 000152	010 EF.I0 = 000001	013 N.BUFB = 004000	SS.STT 000000	004 XHULW = 000042R	
B.FFSA 000202	010 ERR1 004044R	N.BUFW = 002000	ST.ASZ 000020	006 XISCHS = 000000	
B.FFSA 000212	010 ERR1L = 000032	N.FOS = 000764	ST.BSZ 000024	006 XQTS = 000003	
B.FFSC 000222	010 ERR1T 004046R	N.PKSZ = 000020	ST.BTC 000000	006 XQT0 = 000001	
B.FFMR 000172	010 ERR2 004100R	N.PKTS = 000043	ST.CSZ 000030	006 XSLORA = 000005	
B.FQLS 000162	010 ERR2L = 000021	N.QURY = 000031	ST.HRL 000010	006 \$\$\$ = 000040R	014
B.FSAZ 000180	010 ERR2T 004102R	N.SUNT = 000002	ST.LEN 000044	006 \$\$\$ = 000002	
B.FSBZ 000182	010 FD.FID 000000	003 OE.RD1 = 000144	ST.QRY 000002	006 \$\$\$OST = 000004	
B.FSCZ 000184	010 FD.FNB 000006	003 O.FDSC 000004	007 ST.QSZ 000034	006 \$\$\$TI = 000000	
B.HBLK 000120	010 FD.FVR 000004	003			

. ABS. 000000 000
SRCOFF 004432 001
FDSCOF 000122 002
SUSOFF 000010 003
DHROFF 000012 004
STTOFF 000044 005
QSPLDF 000014 006

GTSREC. M1110 27-MAR-80 13:25 PAGE 11-2
SYMBOL TABLE

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

BSTOFF: 000772 010
FNOFFS: 000044 011
WNOOPF: 000010 012
DNOOPF: 000010 013
\$DPB\$\$ 000044 014
ERRORS DETECTED: 0

VIRTUAL MEMORY USED: 3860 WORDS (16 PAGES)
DYNAMIC MEMORY: 4916 WORDS (18 PAGES)
ELAPSED TIME: 00:00:26
GTSREC. GTSREC/SP=C20.11P.M. GTSREC.

STATUS: M 00-M1110 27-MAR-80 13:37
TABLE OF CONTENTS:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

10- 2- STT COMMAND DISPATCHER

STATUS: MACRO-M1110 27-MAR-80 13:37 PAGE:10

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
000005  
000001  
: .TITLE: STATUS:  
: .SBTTL: SYT-COMMAND-DISPATCHER:  
:  
: .MCALL: GMCRT$,DIR$,EXIT$S:  
: .MCALL: SDAT$S,ROST$S,QIOW$S:  
:  
: .GLOBL: $DSW  
:  
: TILUN=5  
: TIEF=1  
:
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

STATUS: M000-M1110 27-MAR-80 13:37 PAGE: 11
STT: COMMAND DISPATCHER

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
16 ;  
17 ; DATA  
18 000000 GETCMD: GMDR$ ; GET COMMAND LINE  
19 ;  
20 ;  
21 ; MESSAGES  
22 000122 000024 MSG1: .WORD MSG1L  
23 000124 123 124 124 MSG1T: .ASCII /STT: INVALID COMMAND/  
    000127 072 040 111  
    000132 116 126 101  
    000135 114 111 104  
    000140 040 103 117  
    000143 115 115 101  
    000146 116 104  
24 000024 MSG1L=-MSG1T  
25 .EVEN  
26 ;  
27 ;  
28 000150 SNPKT: .BLKW 13. ; SEND PACKET  
29 000202 IOSTAT: .BLKW 2. ; I/O STATUS  
30 ;  
31 ;  
32 ; COMMAND DISPATCH TABLE  
33 000206 DSPTBL:  
34 000206 000240 .WORD BTCHST ; ADDRESS OF STRING  
35 000210 000000 .WORD 0 ; COMMAND CODE  
36 000212 000274 012000 .RAD50 /BATCH/ ; HANDLING TASK NAME  
37 000216 000246 .WORD DTBSST  
38 000220 000002 .WORD 2  
39 000222 014543 076474 .RAD50 /DBSTAT/  
40 000226 000257 .WORD STTSST  
41 000230 000004 .WORD 4  
42 000232 074741 077770 .RAD50 /STATS/  
43 ;  
44 000236 000000 .WORD 0 ; END OF TABLE  
45 ;  
46 ;  
47 000240 102 101 124 ; COMMAND CODE STRINGS  
    000243 103 110 000 BTCHST: .ASCII /BATCH/  
48 000246 104 101 124 DTBSST: .ASCII /DATABASE/  
    000251 101 102 101  
    000254 123 105 000  
49 000257 123 124 101 STTSST: .ASCII /STATS/  
    000262 124 123 000  
50 .EVEN  
51 ;
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
53      ;  
54      ; DETERMINE TYPE OF INPUT.  
55      ;  
56      START:  
57      DIR$ #GETCMD.      ; GET COMMAND LINE.  
58      MOV.  $DSW,R1      ; LENGTH OF DATA.  
59      SUB.   #4,R1       ; MINUS 'STT.'  
60      BLE.   SYNTAXE.    ; NO PARAMS  
61      ; START COMMAND PARSE.  
62      PARIN: SAVE. R1      ; LENGTH OF PARAMS.  
63      MOV.   #DSPTBL,R4   ; FIRST DISPATCH TABLE ENTRY.  
64      SAVE.  R4  
65      ; NEXT DISPATCH TABLE ENTRY.  
66      1$: MOV. #GETCMD+G.MCRB+4,R2. ; ADDRESS OF COMMAND.  
67      MOV.   2(SP),R1      ; LENGTH OF INPUT.  
68      MOV.   (SP),R4       ; NEXT DISP TABLE ENTRY.  
69      MOV.   (R4)+,R3      ; COMMAND STRING ADDRESS.  
70      ;  
71      2$: CMPB. (R3)+,(R2)+ ; BRANCH IF COMMAND.  
72      BNE.    4$          ; STRING MISMATCH.  
73      CMPB.   #?,(R2)    ; MATCH - INPUT DELIMITER?  
74      BNE.    3$          ; NO - CONTINUE.  
75      TSTB.   (R3)        ; COMMAND IN TABLE DELIMITED.  
76      BNE.    3$          ; NO - CONTINUE.  
77      SUB.    #2,R1       ; MATCHED - ACCOUNT FOR '1'  
78      INC.    R2.  
79      BR.     MTCHCD.  
80      SOB.    R1,2$      ; CONTINUE COMMAND SCAN.  
81      TSTB.   (R3)        ; OUT OF COMMAND INPUT - BRANCH  
82      BEQ.    MTCHCD.    ; IF END OF COMMAND  
83      ; NO MATCH THIS ENTRY.  
84      4$: ADD.  #8,(SP)    ; NEXT TABLE ENTRY ADDRESS.  
85      TST.    #0(SP)      ; CONTINUE IF NOT.  
86      BNE.    1$          ; END OF TABLE.  
87      ; NO MATCH IN TABLE.  
88      ADD.    #4,SP.      ; RESTORE STACK.  
89      ;  
90      ; SYNTAX ERROR.  
91      SYNTAXE: MOV. #MSG1,R0  
92      ;  
93      ; ISSUE MESSAGE TO CONSOLE.  
94      COOUT: MOV. (R0)+,R1  
95      QIOU$. #IO,ULB,#TILUN,#TIEF,...,<R0,R1,#40>  
96      ;  
97      EXIT$.  
98      ;  
99      ;  
100     ; MATCHED DISPATCH TABLE ENTRY  
101     MTCHCD: ADD. #4,SP      ; RESTORE STACK.  
102     MOV.    #SNDPKT,R0    ; SEND PACKET ADDRESS  
103     MOV.    (R4)+,(R0)+   ; COMMAND CODE.  
104     MOV.    R1,(R0)+     ; # OF PARAM CHARS.  
105     BEQ.    2$          ; NO PARAMS  
106     BMI.    SYNTAXE.     ; ERROR SLIPPED THROUGH.  
107     CMP.    R1,#22.  
108     BHI.    SYNTAXE.     ; ERROR IN PARAMS  
109     1$: MOVB. (R2)+,(R0)+ ; PARAMS TO PACKET.
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

STATUS: M1110 27-MAR-80 13:37 PAGE: 12-1
STT: COMMAND DISPATCHER

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

110 000516 077102	:	SOB	R1.1\$	
111	:			
112 000520	2\$:	SDAT\$S	R4, #SNDPKT	:SEND DATA
113 000542	:	RQST\$S	R4	:RUH TASK
114	:			
115 000566	:	EXIT\$S		:DONE
116	:			
117	:			
118	:			
119 000266	:	.END	START	

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

BITVAL = 000000	B.FSBZ 000102	010 FN.DBR 000026	011 SNPKT 000150R	SU.DBU = 000004
BIT0 = 000001	B.FSCZ 000104	010 FN.DBS 000022	011 SR.ARE 000114	002 SU.DON = 000006
BIT1 = 000002	B.HBLK 000120	010 FN.DHP 000040	011 SR.ARS 000106	002 SU.IDL = 000000
BIT10 = 002000	B.HDDC 000114	010 FN.EMA 000012	011 SR.DAY 000010	002 SU.LOD = 000001
BIT11 = 004000	B.HRLP 000126	010 FN.EMB 000014	011 SR.DLT 000014	002 SU.SRC = 000002
BIT12 = 010000	B.HRLR 000122	010 FN.EMC 000016	011 SR.ECB 000047	002 SU.SRR = 000005
BIT13 = 020000	B.HRLW 000124	010 FN.FSA 000000	011 SR.ECH 000046	002 SU.XPD = 000003
BIT14 = 040000	B.NMBR 000052	010 FN.FSB 000002	011 SR.ECL 000050	002 SYNTAX = 000404R
BIT15 = 100000	B.NORY 000232	010 FN.FSC 000004	011 SR.FIB 000012	002 S.HRL = 000240
BIT2 = 000004	B.QLSZ 000106	010 FN.LGO 000034	011 SR.GRE 000100	002 TIEF = 000001
BIT3 = 000010	B.QMAP 000234	010 FN.LGU 000036	011 SR.GPS 000072	002 TILUN = 000005
BIT4 = 000020	B.QSPL 000316	010 FN.HFO 000024	011 SR.LEN 000122	002 UN.NTP 000004
BIT5 = 000040	B.OTTH 000076	010 FN.MHR 000010	011 SR.LIN 000066	002 UN.NXT 000006
BIT6 = 000100	B.QUOP 000056	010 FN.NMB 000044	011 SR.LIP 000062	002 UN.ROT 000002
BIT7 = 000200	B.SFDB 000010	010 FN.QLS 000006	011 SR.MON 000006	002 UN.SIZ 000010
BIT8 = 000400	B.SIZE 000772	010 FN.QRY 000020	011 SR.NDC 000042	002 UN.SRC 000000
BIT9 = 001000	B.SNDP 000012	010 FN.SFO 000030	011 SR.NDS 000036	002 UN.TYP 000001
BS.CLS = 000002	B.SSQ 000004	010 FN.SFI 000032	011 SR.NIN 000030	002 WORD0 = 000000
BS.DBU = 000004	B.SSQF 000050	010 FN.SHD 000042	011 SR.NIP 000022	002 WORD1 = 000002
BS.INA = 000000	B.STAT 000044	010 GETCHD 000000R	SR.SDB 000032	002 WORD2 = 000004
BS.OPN = 000001	B.STTE 000053	010 G.MCRB = 000002	SR.SRC 000002	002 WORD3 = 000006
BS.SRC = 000003	B.UPOC 000110	010 IOSTAT 000202R	SR.SUN 000000	002 WORD4 = 000010
BTCHST = 000240R	CF.B0 = 000070	IO.WLB = ***** GX	SR.TWS 000056	002 WORD5 = 000012
BYTE0 = 000000	CF.B2 = 000067	M = 000062	SR.WSL 000052	002 WORD6 = 000014
BYTE1 = 000001	CF.B4 = 000066	MSG1 000122R	SR.YR 000004	002 WORD7 = 000016
BYTE2 = 000002	CF.B6 = 000065	MSG1L = 000024	SR.1IN 000024	002 WORD8 = 000020
BYTE3 = 000003	CF.DR0 = 000064	MSG1T 000124R	SR.1IP 000016	002 WORD9 = 000022
BYTE4 = 000004	CF.DR1 = 000063	MTCHCD 000466R	SS.FID 000002	004 WRDVAL = 000024
BYTE5 = 000005	COOUT 000410R	N = 000002	SS.FNB 000010	004 XBATCH = 000013
BYTE6 = 000006	DBSLN = 000116	N.BFAC = 000004	SS.FVR 000006	004 XBLDRA = 000004
BYTE7 = 000007	DH.BF0 000002	005 N.BHGH = 000005	SS.LEN 000012	004 XDBPRO = 000012
BYTE8 = 000010	DH.BF1 000004	005 N.BTCH = 000004	SS.STT 000000	004 XDMCIN = 000006
BYTE9 = 000011	DH.CTL 000000	005 N.BUFB = 004000	START 000266R	XFOSHR = 000007
BYTVAL = 000012	DH.DMC 000010	005 N.BUFW = 002000	STTSST 000257R	XGTSRE = 000014
B.BSTA 000054	010 DH.FLG 000006	005 N.FOS = 000764	ST.ASZ 000020	006 XHITSK = 000011
B.CNTX 000046	010 DH.DCK 000000	013 N.PKSZ = 000020	ST.BSZ 000024	006 XHLMER = 000002
B.CQUO 000060	010 DH.NTP 000004	013 N.PKTS = 000043	ST.BTC 000000	006 XHOTSK = 000010
B.FEMH 000132	010 DN.NXT 000006	013 N.QURY = 000031	ST.CSZ 000030	006 XMSCHC = 000000
B.FEMH 000142	010 DN.ROT 000002	013 N.SUNT = 000002	ST.HRL 000010	006 XOTS = 000003
B.FEMC 000152	010 DN.SIZ 000010	013 PARSIN 000306R	ST.LEN 000044	006 XOT0 = 000001
B.FFSA 000202	010 DSFTBL 000206R	QE.ROI = 000144	ST.ORY 000002	006 XSULO0 = 000005
B.FFSB 000212	010 DTEST 000246R	Q.FDSC 000004	007 ST.OSZ 000034	006 \$DSW = ***** G
B.FFSC 000222	010 FD.FID 000000	003 Q.NGBK 000000	007 ST.SCH 000040	006 \$\$\$ARG = 000002
B.FMHR 000172	010 FD.FNB 000006	003 Q.NUHL 000002	007 ST.UHL 000004	006 \$\$\$OST = 000122
B.FQLS 000162	010 FD.FYR 000004	003 Q.SIZE 000014	007 ST.XLT 000014	006 \$\$\$T2 = 000004
B.FSAZ 000100	010 FD.LEN 000010			
ABS. 000000	000			
SRCOFF 000574	001			
FDSCOFF 000122	002			
SUSOFF 000010	003			
DHRCOFF 000012	004			
STTOFF 000044	005			
QSPLOF 000014	006			
BSTOFF 000772	007			
FNOFFS 000044	010			
	011			

STATUS: M 00-M1110 27-MAR-80 13:37 PAGE: 12-3
SYMBOL TABLE

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

WHODOF: 000010 012
DHODOF: 000010 013
ERRORS DETECTED: 0

VIRTUAL MEMORY USED: 3504 WORDS (14 PAGES)
DYNAMIC MEMORY: 4916 WORDS (18 PAGES)
ELAPSED TIME: 00:00:23
STATUS: STATUS: SP=C20, 1JP, M, STATUS:

BATCH: M000-M1110 27-MAR-80 13:37
TABLE OF CONTENTS

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

10- 2- DISPLAY BATCH STATUS

BATCH: MACRO-M1110 27-MAR-80 13:37 PAGE 10

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

1		.TITLE- BATCH-
2		.SBTTL- DISPLAY- BATCH- STATUS-
3		:
4		:
5		.MCALL- RCVX\$C.EXIT\$S.OIOW\$S-
6		:
7		:
8		.GLOBL- BSTPTR-
9		:
10		:
11	000005	TILUN=5
12	000001	TIEF=1
13		:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

BATCH: M000-M1110 27-MAR-80 13:37 PAGE: 11
DISPLAY: BATCH STATUS

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
15  
16  
17  
18 000000  
19 000004  
20 000006  
21 000010  
22  
23 000036  
24 000042  
25  
26  
27  
28  
29 000044 000043  
30 000046 102 101 124  
000051 103 110 040  
000054 040 123 124  
000057 101 124 105  
000062 040 040 040  
000065 040 040 040  
000070 040 040 040  
000073 040 040 040  
000076 040 040 040  
000101 040 121 125  
000104 105 122 111  
000107 105 123  
31 000043  
32  
33  
34  
35  
36  
37 000112 040  
38 000113  
39 000115 040 040 040  
000120 040  
40 000121  
41 000033  
42 000145 040 040  
43 000147  
44 000040  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56 000152 000 000  
57 000154 002 003  
58 000156 006 002  
59 000160 010 002
```

;
; DATA
;
RCVDAT: .BLKW: 2: :RECEIVE PACKET
RCVCHD: .BLKW: 1 :COMMAND CODE
RCVCHR: .BLKW: 1 :# OF PARAMETER CHARACTERS
RCVPRM: .BLKB: 22: :PARAMETER TEXT
;
IOSTAT: .BLKW: 2:
SAVESP: .BLKW: 1
;
;
; TABLE HEADING
;
MSG1: .WORD: MSG1L
MSG1: .ASCII: /BATCH: STATE: QUERIES/
;
MSG1L=,MSG1L
; .EVEN
;
; BATCH STATUS LINE SKELETON
;
SKELTN: .ASCII: / /
BNO: .BLKB: 2:
; .ASCII: / /
;
STATE: .BLKB: 20:
SKLSHT=,SKELTN
; .ASCII: / /
NQR: .BLKB: 3
SKLNGT=,SKELTN
; .EVEN
;
;
; BATCH STATE MESSAGE TABLES
;
; INDEX BATCH STATE TO MESSAGE INDEX
; BYTE 0 - INDEX
; BYTE 1 - BIT0: HAS BATCH STATE STATUS INFORMATION
; BIT1: NEEDS # OF QUERIES
;
BSIXIX: .BYTE: 0,0 :BS:INA
; .BYTE: 2,BIT0:BIT1 :BS:OPN
; .BYTE: 6,BIT1 :BS:CLS
; .BYTE: 8,BIT1 :BS:SRC

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

BATCH: MACRO:M1110 27-MAR-80 13:37 PAGE:11-1
DISPLAY: BATCH STATUS

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
60 000162. 012. 001 .BYTE. 10. BIT0 :BS.DBU.
61
62 : STATE MESSAGE INDEX TABLE
63 :
64 000164 000202' BSTINX: .WORD. BS1
65 000166 000213' .WORD. BS2
66 000170 000227' .WORD. BS3
67 000172 000246' .WORD. BS4
68 000174 000255' .WORD. BS5
69 000176 000264' .WORD. BS6
70 000200 000311' .WORD. BS7
71
72 : STATE MESSAGES
73 :
74 000202. 111 116 101 BS1: .ASCIZ. /INACTIVE/
    000205 103 124 111
    000210 126 105 000
75 000213 117 120 105 BS2: .ASCIZ. *OPEN/ACTIVE*
    000216 116 057 101
    000221 103 124 111
    000224 126 105 000
76 000227 117 120 105 BS3: .ASCIZ. *OPEN/TRANSLATE*
    000232. 116 057 124
    000235 122 101 116
    000240 123 114 101
    000243 124 105 000
77 000246 103 114 117 BS4: .ASCIZ. /CLOSED/
    000251 123 105 104
    000254 000
78 000255 123 105 101 BS5: .ASCIZ. /SEARCH/
    000260 122 103 110
    000263 000
79 000264 104 101 124 BS6: .ASCIZ. *DATA BASE/CONTINUOUS*
    000267 101 040 102
    000272 101 123 105
    000275 057 103 117
    000300 116 124 111
    000303 116 125 117
    000306 125 123 000
80 000311 104 101 124 BS7: .ASCIZ. *DATA BASE/MASS*
    000314 101 040 102
    000317 101 123 105
    000322. 057 115 101
    000325 123 123 000
81
82 000330 040 040 040 BLANKS: .ASCIZ. / / :BLANK FILL
    000333 040 040 040
    000336 040 040 040
    000341 040 040 040
    000344 040 040 040
    000347 040 040 040
    000352. 040 040 040
83
84 : .EVEN
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

86
87 000354
88 000354 010667 177462
89
90 000360 016706 177456
91 000364
92 000372 103003
93 000374
94
95 000402 012700 000044
96 000406 012001
97 000410
98
99
100 000414 005004
101
102 000416 016405 000000G
103 000422 010401
104 000424 005000
105 000426 071027 000012
106 000432 062701 000060
107 000436 110167 177452
108 000442 062700 000060
109 000446 110067 177441
110
111 000452 116500 000053
112 000456 060000
113 000460 116001 000152
114 000464 132760 000001 000153
115 000472 001406
116 000474 032765 000001 000054
117 000502 001402
118 000504 062701 000002
119 000510 016101 000164
120 000514 012702 000121
121 000520 012703 000024
122 000524 112122
123 000526 001005
124 000530 112762 000040 177777
125 000536 012701 000330
126 000542 077310
127
128 000544 012701 000033
129 000550 132760 000002 000153
130 000556 001424
131 000560 112767 000040 177361
132 000566 112767 000040 177354
133 000574 012702 000152
134 000600 016501 000232
135 000604 005000
136 000606 071027 000012
137 000612 062701 000060
138 000616 110142
139 000620 010001
140 000622 001370
141 000624 012701 000040
142 000630 012700 000112

;
; START:
; MOV SP, SAVESP ; SAVE IDLE TASK STACK POINTER
;
; RSTART: MOV SAVESP, SP ; RESTORE STACK
; RCVX#C, RCVDAT ; TRY FOR PACKET
; BCC 1$
; EXIT$S
;
; 1$: MOV #MSG1, R0 ; PUT OUT TABLE HEADER
; MOV (R0)+, R1
; CALL TIOUT
;
; OUTPUT STATUS LINE FOR EACH BATCH
; CLR R4 ; BATCH 0
; NEXT BATCH
; NXTBTC: MOV BSTPTR(R4), R5 ; BST ADDRESS
; MOV R4, R1 ; MOVE ASCII BATCH NUMBER
; CLR R0 ; TO MESSAGE WITH LEADING ZERO
; DIV #10, R0
; ADD #0, R1
; MOV R1, BNO+1
; ADD #0, R0
; MOV R0, BNO
; BUILD BATCH STATE MESSAGE
; MOV B, STTE(R5), R0 ; BATCH STATE
; ADD R0, R0 ; INDEX
; MOV BSIXIX(R0), R1 ; MESSAGE INDEX
; BITB #BIT0, BSIXIX+1(R0) ; BRANCH IF NO SUB STATE FLAGS
; BEQ 1$
; BIT #BIT0, B, BSTA(R5) ; PLUS 2 IF SUBSTATE SHOWS OTHER STATUS
; BEQ 1$
; ADD #2, R1
; 1$: MOV BSTINX(R1), R1 ; ADDRESS OF TEXT
; MOV #STATE, R2 ; PLACE IN MESSAGE
; MOV #20, R3 ; FIELD WIDTH
; STATXT: MOV (R1)+, (R2)+ ; TEXT CHAR
; BNE 1$ ; NOT END OF TEXT
; MOV #-1(R2) ; RECOVER BLANK
; MOV #BLANKS, R1 ; BLANK FILL REST
; SOB R3, STATXT
; PUT IN # OF QUERIES
; NMBQTX: MOV #SKLSHT, R1 ; ASSUME NO QUERY #
; BITB #BIT1, BSIXIX+1(R0) ; BRANCH IF SO
; BEQ 2$
; MOV #0, R0 ; INIT HIGH ORDER BLANKS
; MOV #0, R0+1
; MOV #NOR+3, R2
; MOV B, NOR(R5), R1
; 1$: CLP R0 ; START A LOW ORDER
; DIV #10, R0 ; # OF QUERIES
; ADD #0, R1 ; SPLIT OFF LOW ORDER DECADE
; MOV R1, -(R2) ; MAKE IT ASCII
; MOV R0, R1 ; INTO MESSAGE
; BNE 1$ ; CONTINUE TILL ZERO
; MOV #SKLNGT, R1 ; FULL LENGTH OF TEXT
; 2$: MOV #SKELTN, R0 ; TEXT START

```

BATCH: MACRO-M1110 27-MAR-80 13:37 PAGE:12-1
DISPLAY: BATCH STATUS

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

143	000634		CALL	T1OUT	:OUTPUT:
144					
145	000640	062704	ADD	#2,R4	:DO-ALL-BATCHES:
146	000644	020427	CMP	R4,#N:BHGH	
147	000650	101662	BLOS	NXTBTC	
148	000652	000167	JMP	RSTART	:NEXT-PACKET:
149					

BATCH: M1110 27-MAR-80 13:37 PAGE: 13
DISPLAY: BATCH STATUS

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
151      :  
152      : OUTPUT-A BATCH STATUS LINE:  
153      :  
154      : INPUT-- R0: DATA START ADDRESS.  
155      :          R1: LENGTH OF TEXT.  
156      :  
157 000656      :  
158 000726      :  
159 000734 122767 000000G-177102.  TIOUT:  QIOWS.  *IO.WLB,*TILUN,*TIEF,,*IOSTAT,,<R0,R1,*40>  
160 000736 001001      :          CMPB.  *IS.SUC,IOSTAT  
161      :          BNE.  PRCERR.  
162      :          RTN.  
163      :  
164 000740      :  
165 000740 000167 177414      : ERROR:  
166      :  
167      : PRCERR:  
168      :          JMP.  RSTART.  
      :  
      :  
      : .END.  START.
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

BITVAL = 000000	B.FEMC 000152	010 FN.DBR 000026	011 RCVPRM 000010R	ST.QSZ 000034	006
BIT0 = 000001	B.FFSA 000202	010 FN.DBS 000022	011 RSTART 000360R	ST.SCH 000040	006
BIT1 = 000002	B.FFSB 000212	010 FN.DHR 000040	011 R.VXBA 000006	ST.UHL 000004	006
BIT10 = 002000	B.FFSC 000222	010 FN.EMA 000012	011 R.VXTH 000002	ST.XLT 000014	006
BIT11 = 004000	B.FMHR 000172	010 FN.EMB 000014	011 SAVESP 000042R	SU.DBU 000004	
BIT12 = 010000	B.FOLS 000162	010 FN.ENC 000016	011 SKELTN 000112R	SU.DON 000006	
BIT13 = 020000	B.FSAZ 000100	010 FN.FSA 000000	011 SKLNST 000040	SU.IDL 000000	
BIT14 = 040000	B.FSBZ 000102	010 FN.FSB 000002	011 SKLSHT 000033	SU.LOD 000001	
BIT15 = 100000	B.FSCZ 000104	010 FN.FSC 000004	011 SR.ARE 000114	002 SU.SRC 000002	
BIT2 = 000004	B.HBLK 000120	010 FN.LGO 000034	011 SR.ARS 000106	002 SU.SRR 000005	
BIT3 = 000010	B.HDOP 000114	010 FN.LGU 000035	011 SR.DAY 000010	002 SU.XPD 000003	
BIT4 = 000020	B.HRLP 000125	010 FN.MFO 000024	011 SR.DLT 000014	002 S.HRL 000240	
BIT5 = 000040	B.HRLR 000122	010 FN.MHR 000010	011 SR.ECB 000047	002 TIEF 000001	
BIT6 = 000100	B.HRLW 000124	010 FN.NMB 000044	011 SR.ECH 000045	002 TILUN 000005	
BIT7 = 000200	B.NMBR 000052	010 FN.OLS 000006	011 SR.ECL 000050	002 TIOUT 000656R	
BIT8 = 000400	B.NORY 000232	010 FN.QRY 000020	011 SR.FIB 000012	002 UN.NTP 000004	012
BIT9 = 001000	B.QLS2 000106	010 FN.SFO 000030	011 SR.GRE 000100	002 UN.NXT 000006	012
BLANKS 000330R	B.QMAP 000234	010 FN.SFI 000032	011 SR.GRS 000072	002 UN.ROT 000002	012
BNO 000113R	B.QSPL 000316	010 FN.SHD 000042	011 SR.LEN 000122	002 UN.SIZ 000010	012
BSIXIX 000152R	B.OTTM 000076	010 IOSTAT 000036R	SR.LIN 000066	002 UN.SRC 000000	012
BSTINX 000164R	B.QUOP 000056	010 ID.WLB 000000 GX	SR.LIP 000062	002 UN.TYP 000001	012
BSTPTR 000000 G	B.SFDB 000010	010 IS.SUC 000000 GX	SR.MON 000006	002 WORD0 000000	
BS.CLS 000002	B.SIZE 000772	010 M 000062	SR.NDC 000042	002 WORD1 000002	
BS.DBU 000004	B.SNDP 000012	010 MSG1 000044R	SR.NDS 000036	002 WORD2 000004	
BS.INA 000000	B.SSQ 000004	010 MSG1L 000043	SR.NIN 000030	002 WORD3 000006	
BS.OPN 000001	B.SSQF 000050	010 MSG1T 000046R	SR.NIP 000022	002 WORD4 000010	
BS.SRC 000003	B.STAT 000044	010 M 000002	SR.SDB 000032	002 WORD5 000012	
BS1 000202R	B.STTE 000053	010 NMBQTX 000544R	SR.SRC 000002	002 WORD6 000014	
BS2 000213R	B.UDOC 000110	010 NOR 000147R	SR.SUN 000000	002 WORD7 000016	
BS3 000227R	CF.B0 000070	NXTBTC 000416R	SR.TWS 000056	002 WORD8 000020	
BS4 000246R	CF.B2 000067	N.BFAC 000004	SR.WSL 000052	002 WORD9 000022	
BS5 000255R	CF.B4 000066	N.BHGH 000006	SR.YR 000004	002 WRDVAL 000024	
BS6 000264R	CF.B6 000065	N.BTCH 000004	SR.IIN 000024	002 XBATCH 000013	
BS7 000311R	CF.B8 000064	N.BUFB 004000	SR.IIP 000016	002 XBLOA 000004	
BYTE0 000000	CF.DR1 000063	N.BUFW 002000	SS.FID 000002	004 XDBPRO 000012	
BYTE1 000001	DBSLN 000116	N.FOS 000764	SS.FNB 000010	004 XDMCH 000006	
BYTE2 000002	DH.BF0 000002	005 N.PKSZ 000020	SS.FVR 000006	004 XFOSMR 000002	
BYTE3 000003	DH.BF1 000004	005 N.PKTS 000043	SS.LEN 000012	004 XGTSRE 000014	
BYTE4 000004	DH.CTL 000000	005 N.QURY 000031	SS.STT 000000	004 XHITSK 000011	
BYTE5 000005	DH.DMC 000010	005 N.SUNT 000002	START 000354R	XHLNER 000002	
BYTE6 000006	DH.FLG 000006	005 PRCERR 000740R	STATE 000121R	XHOTSX 000010	
BYTE7 000007	DN.DCK 000000	013 QE.R01 000144	STATXT 000524R	XMSCHE 000000	
BYTE8 000010	DN.NTP 000004	013 Q.FDSC 000004	007 ST.ASZ 000020	006 XQTS 000003	
BYTE9 000011	DN.NXT 000006	013 Q.HQKB 000000	007 ST.B5Z 000024	006 XQT0 000001	
BYTVAL 000012	DN.ROT 000002	013 Q.NUHL 000002	007 ST.BTC 000000	006 XSULO 000005	
B.BSTA 000054	010 DN.SIZ 000010	013 Q.SIZE 000014	007 ST.CSZ 000030	006 \$\$\$ 000000R	014
B.CNTX 000046	010 FD.FID 000000	003 RCVCXR 000006R	ST.HRL 000010	006 \$\$\$ARG 000002	
B.CQUO 000060	010 FD.FNB 000006	003 RCVCND 000004R	ST.LEN 000044	006 \$\$\$OST 000010	
B.FEMA 000132	010 FD.FYR 000004	003 RCVDAT 000000R	ST.QRY 000002	006 \$\$\$T1 000000	
B.FEMB 000142	010 FD.LEN 000010	003			
ABS 000000	000				
000744	001				
SRCOFF 000122	002				
FDSCOF 000010	003				
SUSOFF 000012	004				
DHROFF 000012	005				

BATCH: M1110 27-MAR-80 13:37 PAGE: 13-2
SYMBOL: TA

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

STTOFF: 000044 006
QSPLOF: 000014 007
BSTOFF: 000772 010
FNOFFS: 000044 011
WNODOF: 000010 012
DNODOF: 000010 013
\$DPB\$\$ 000010 014
ERRORS DETECTED: 0

VIRTUAL MEMORY USED: 3639 WORDS (15 PAGES)
DYNAMIC MEMORY: 4916 WORDS (18 PAGES)
ELAPSED TIME: 00:00:23
BATCH: BATCH/SP=L20.1JP.M.BATCH

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

DBSTAT: M 00:M1110 27-MAR-80 13:38
TABLE OF CONTENTS

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

10- 2- DISPLAY DATA BASE STATISTICS

DBSTAT MACRO M1110 27-MAR-80 13:38 PAGE 10

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
000005  
000001
```

```
      .TITLE DBSTAT  
      .SBTTL DISPLAY DATA BASE STATISTICS  
      ;  
      ;  
      .MCALL RCVM$C,EXIT$S,DIOW$S  
      ;  
      ;  
      .GLOBL SRECPT,$DAT,$CBTA,$CDDMG  
      ;  
      ;  
      TILUN=5  
      TIEF=1  
      ;
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

Approved For Release 2005/07/20 : CIA-RDP85-00514R000100030001-3

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

DBSTAT: MACRO-M1110 27-MAR-80 13:38 PAGE 11-1
DISPLAY: DATA: BASE: STATISTICS:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
53      000106      L2=-LINE2
54      ;
55      ;
56 000232      LINE3:
57 000232      043      040      117      .ASCII- /#-OF-DOC- INIT:/
      000235      106      040      104
      000240      117      103      055
      000243      040      111      116
      000246      111      124      072
58 000251      NDI:      .BLKB- 9.
59 000262      040      040      040      .ASCII- / ID-RANGE:/
      000265      111      104      040
      000270      122      101      116
      000273      107      105      072
60 000276      LID:      .BLKB- 9.
61 000307      055      .ASCII- /-/-
62 000310      HID:      .BLKB- 9.
63      000067      L3=-LINE3
64      ;
65      ;
66 000321      LINE4:
67 000321      040      040      040      .ASCII- / CURRENT:/
      000324      040      040      040
      000327      040      103      125
      000332      122      122      105
      000335      116      124      072
68 000340      NDC:      .BLKB- 9.
69 000351      040      040      040      .ASCII- / ID-RANGE:/
      000354      111      104      040
      000357      122      101      116
      000362      107      105      072
70 000365      LCD:      .BLKB- 9.
71 000376      055      .ASCII- /-/-
72 000377      HCD:      .BLKB- 9.
73      000067      L4=-LINE4
74      ;
75      ;
76      .EVEN-
77      ;
78      ;
79      ; OUTPUT-LINE-INDEX-TABLE-
80      ;
81 000410 000050' OUTBL: .WORD- LINE0
82 000412 000002' .WORD- L0
83 000414 000052' .WORD- LINE1
84 000416 000052' .WORD- L1
85 000420 000124' .WORD- LINE2-
86 000422 000106' .WORD- L2-
87 000424 000232' .WORD- LINE3
88 000426 000067' .WORD- L3
89 000430 000321' .WORD- LINE4
90 000432 000067' .WORD- L4
91 000434 000000' .WORD- 0
92      ;
93      ;
94      ; MESSAGE-SKELETON-PORTIONS-TO-BE-BLANKED-
95 000436 000057' 000002' BLNKTB: .WORD- UNB.2
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

DBSTAT: M1110 27-MAR-80 13:38 PAGE 11-2.
DISPLAY: BASE STATISTICS.

Approved For Release 2005/07/25 : CIA-RDP85-00514R000100030001-3

96 000442. 000071' 000011
97 000446. 000121' 000003
98 000452. 000146' 000011
99 000456. 000175' 000011
100 000462. 000221' 000011
101 000466. 000251' 000011
102 000472. 000276' 000011
103 000476. 000310' 000011
104 000502. 000340' 000011
105 000506. 000365' 000011
106 000512. 000377' 000011
107 000516. 000000
108
109

.WORD DAT.9.
.WORD PFL.3
.WORD DSC.9.
.WORD WSE.9.
.WORD WST.9.
.WORD NDI.9.
.WORD LID.9.
.WORD HID.9.
.WORD NDC.9.
.WORD LCD.9.
.WORD HCD.9.
.WORD 0

:END OF TABLE.

111					
112	000520			START:	
113	000520	010667	177316	MOV	SP, SAVESP
114					: SAVE IDLE TASK STACK POINTER
115	000524	016706	177312	RSTART:	MOV, SAVESP, SP
116	000530				: RESTORE STACK
117	000536	103003			: TRY FOR PACKET
118	000540			BCC	1\$
119				EXIT\$S	
120	000546	005004			
121				1\$:	CLR, R4
122					: SREC INDEX
123	000550	016405	000000G		
124				: NEXT STATUS RECORD	
125	000554	012703	000436'	NXTSRC:	MOV, SRECPT(R4), R5
126	000560	012301			: SREC ADDRESS
127	000562	001405		: BLANK PORTIONS OF MESSAGE SKELETON	
128	000564	012300		MOV	#BLKTB, R3
129	000566	112721	000040	1\$:	MOV, (R3)+, R1
130	000572	077003			: TABLE OF AREA POINTERS
131	000574	000771		BEQ	FRSTLN
132				MOV	(R3)+, R0
133					: ADDRESS OF AREA TO BE BLANKED
134	000576	010401		2\$:	MOV, (R3)+, R0
135	000600	006201			: DONE WITH BLANKING
136	000602	005000			: LENGTH OF AREA
137	000604	071027	000012		: BLANK IT
138	000610	062701	000060		
139	000614	110167	177240		
140	000620	062700	000060		
141	000624	110067	177227		
142	000630	010501			
143	000632	062701	000004		
144	000636	012700	000071'		
145	000642				
146	000646	116500	000046		
147	000652	016501	000050		
148	000656	166501	000034		
149	000662	005600			
150	000664	166500	000032		
151	000670	010067	177150		
152	000674	010167	177146		
153	000700	073027	177774		
154	000704	010100			
155	000706	070027	000144		
156	000712	012702	000007		
157	000716	012703	105000		
158	000722	166503	000034		
159	000726	005602			
160	000730	166502	000032		
161	000734	073227	177774		
162	000740	071003			
163	000742	005701			
164	000744	001401			
165	000746	005200			
166	000750	010001			
167	000752	012700	000121'	1\$:	MOV, R0, R1
				MOV	#PFL, R0

DBSTAT: M1110 27-MAR-88 13:38 PAGE 12-1
DISPLAY: BASE-STATISTICS

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
168 000756 012702 017012      MOV.    #10, !BIT9!BIT10!14000, R2
169 000762      CALL.   $CBTA
170
171      ; SECOND-LINE
172 000766 012700 000146*      MOV.    #DSC, R0
173 000772 012701 000044*      MOV.    #CNTV, R1
174 000776 005002      CLR.    R2
175 001000      CALL.   $CDDMG
176 001004 012700 000175*      MOV.    #USE, R0
177 001010 016502 000052      MOV.    SR, WSL(R5), R2
178 001014 016503 000054      MOV.    SR, WSL+2(R5), R3
179 001020 073227 177767      ASHC.   #-9, R2
180 001024 010267 177014      MOV.    R2, CNTV
181 001030 010367 177012      MOV.    R3, CNTV+2
182 001034 012701 000044*      MOV.    #CNTV, R1
183 001040 005002      CLR.    R2
184 001042      CALL.   $CDDMG
185 001046 012700 000221*      MOV.    #WST, R0
186 001052 016502 000056      MOV.    SR, TWS(R5), R2
187 001056 016503 000060      MOV.    SR, TWS+2(R5), R3
188 001062 073227 177767      ASHC.   #-9, R2
189 001066 010267 176752      MOV.    R2, CNTV
190 001072 010367 176750      MOV.    R3, CNTV+2
191 001076 012701 000044*      MOV.    #CNTV, R1
192 001102 005002      CLR.    R2
193 001104      CALL.   $CDDMG
194
195      ; THIRD-LINE
196 001110 012700 000251*      MOV.    #NDI, P0
197 001114 012701 000036      MOV.    #SR, NDS, R1
198 001120      CALL.   D0DBLC
199 001124 012700 000276*      MOV.    #LID, R0
200 001130 012701 000074      MOV.    #SR, GRS+2, R1
201 001134      CALL.   D0DBLC
202 001140 012700 000310*      MOV.    #HID, R0
203 001144 012701 000102      MOV.    #SR, GRE+2, R1
204 001150      CALL.   D0DBLC
205
206      ; FOURTH-LINE
207 001154 012700 000340*      MOV.    #NDC, R0
208 001160 012701 000042      MOV.    #SR, NDC, R1
209 001164      CALL.   D0DBLC
210 001170 012700 000365*      MOV.    #LCD, R0
211 001174 012701 000110      MOV.    #SR, ARS+2, R1
212 001200      CALL.   D0DBLC
213 001204 012700 000377*      MOV.    #HCD, R0
214 001210 012701 000116      MOV.    #SR, ARE+2, R1
215 001214      CALL.   D0DBLC
216
217      ; OUTPUT-DATA-LINES
218 001220 012702 000410*      MOV.    #OUTBL, P2
219 001224 012200      OUTOP:  MOV.    (R2)+, R0
220 001226 001404      BEQ.    1$
221 001230 012201      MOV.    (R2)+, R1
222 001232      CALL.   TIOUT
223 001236 000772      BR      OUTOP
224
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

DBSTAT: MACRO-M1110 27-MAR-80 13:38 PAGE 12-2.
DISPLAY: DATA-BASE-STATISTICS:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

225	001240	062704	000002	1\$:	ADD	#2,R4	:NEXT-SU-INDEX
226	001244	020427	000004		CMF	R4,#N:SUNT*2	:BRANCH-IF-DONE
227	001250	103002			BHIS	2\$	
228	001252	000167	177272		JMP	HXTSRC	:DO-NEXT-SU
229				:			
230	001256	000167	177242	2\$:	JMP	RSTART	:NEXT-PACKET
231				:			

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

BITVAL = 000000	B.HRLW 000124	010 FN.MFO 000024	011 RCVCMD 000004R	SU.DBU = 000004
BIT0 = 000001	B.NMBR 000052	010 FN.MHR 000010	011 RCVDAT 000000R	SU.DON = 000006
BIT1 = 000002	B.NDRY 000232	010 FN.NMB 000044	011 RCVPRM 000010R	SU.IDL = 000000
BIT10 = 000000	B.OL52 000106	010 FN.OLS 000006	011 RSTART 000524R	SU.LOD = 000001
BIT11 = 000000	B.QMAP 000234	010 FN.ORY 000020	011 R.VXBA = 000006	SU.SRC = 000002
BIT12 = 010000	B.QSPL 000316	010 FN.SFO 000030	011 R.VXTN = 000002	SU.SRR = 000005
BIT13 = 020000	B.QUQP 000076	010 FN.SFI 000032	011 SAVESP 000042R	SU.XPD = 000003
BIT14 = 040000	B.SIZE 000772	010 FN.SHD 000042	011 SRECP = ***** G	S.HRL = 000240
BIT15 = 100000	B.SFDB 000010	010 FRSTLN 000576R	SR.ARE 000114	002 TIEF = 000001
BIT2 = 000004	B.SSQ 000004	010 HCD 000377R	SR.ARS 000106	002 TILUN = 000005
BIT3 = 000010	B.SSQF 000050	010 HID 000310R	SR.DAY 000010	002 TIOU = 001274R
BIT4 = 000020	B.STAT 000044	010 IOSTAT 000036R	SR.DLT 000014	002 UNB 000057R
BIT5 = 000040	B.STTE 000053	010 IS.SUC = ***** GX	SR.ECB 000047	002 UN.NTP 000004
BIT6 = 000100	B.UDOC 000110	010 LCD 000365R	SR.ECH 000046	002 UN.NXT 000006
BIT7 = 000200	CF.B0 = 000070	010 LID 000276R	SR.ECL 000050	002 UN.ROT 000002
BIT8 = 000400	CF.B2 = 000067	010 LINE0 000050R	SR.FIB 000012	002 UN.SIZ 000010
BIT9 = 001000	CF.B4 = 000066	010 LINE1 000052R	SR.GRE 000100	002 UN.TYP 000000
BLNKTB = 000436R	CF.B6 = 000065	010 LINE2 000124R	SR.GRS 000072	002 WORD0 = 000000
BS.CLS = 000002	CF.DR0 = 000064	010 LINE3 000232R	SR.LEN 000122	002 WORD1 = 000002
BS.DBU = 000004	CF.DR1 = 000063	010 LINE4 000321R	SR.LIN 000066	002 WORD2 = 000004
BS.INR = 000000	CNTV 000044R	L0 = 000002	SR.LIP 000062	002 WORD3 = 000006
BS.OPH = 000001	DAT 000071R	L1 = 000052	SR.MON 000006	002 WORD4 = 000010
BS.SRC = 000003	DBSLEN = 000116	L2 = 000106	SR.NDC 000042	002 WORD5 = 000012
BYTE0 = 000000	DH.BF0 000002	L3 = 000067	SR.NDS 000036	002 WORD6 = 000014
BYTE1 = 000001	DH.BF1 000004	005 L4 = 000067	SR.NIN 000030	002 WORD7 = 000016
BYTE2 = 000002	DH.CTL 000000	005 M = 000062	SR.NIP 000022	002 WORD8 = 000020
BYTE3 = 000003	DH.DMC 000010	005 N = 000002	SR.SDB 000032	002 WORD9 = 000022
BYTE4 = 000004	DH.FLG 000006	005 NDC 000340R	SR.SRC 000002	002 WRDVAL = 000024
BYTE5 = 000005	DN.DCK 000000	005 NDI 000251R	SR.SUN 000000	002 USE 000175R
BYTE6 = 000006	DN.NTP 000004	013 NXTSRC 000550R	SR.TUS 000056	002 WST 000221R
BYTE7 = 000007	DN.NXT 000006	013 N.BFAC = 000004	SR.WSL 000052	002 XBATCH = 000013
BYTE8 = 000010	DN.ROT 000002	013 N.BHGH = 000006	SR.YR 000004	002 XBLOR = 000004
BYTVAL = 000012	DN.SIZ 000010	013 N.BTCH = 000004	SR.1IN 000024	002 XBPOR = 000012
B.BSTA = 000054	DOBLCL 001262R	013 N.BUFB = 004000	SR.1IP 000016	004 XDMCII = 000006
B.CNTY 000046	DSC 000146R	N.BUFW = 002000	SS.FID 000002	004 XFOSMR = 000007
B.CQUX 000060	010 FD.FID 000000	N.FOS = 000764	SS.FNB 000010	004 XGTSRE = 000014
B.FEMA 000132	010 FD.FNB 000006	003 N.PKSZ = 000020	SS.FVR 000006	004 XHITSK = 000011
B.FEHB 000142	010 FD.FVR 000004	003 N.PKTS = 000043	SS.LEN 000012	004 XHLMER = 000002
B.FEMC 000152	010 FN.DBR 000026	003 N.QUERY = 000031	SS.STT 000000	006 XHSCH = 000000
B.FFSA 000202	010 FN.DBS 000022	003 N.SUNT = 000002	START 000520R	006 XQTS = 000003
B.FFSC 000212	010 FN.DHR 000040	011 OUTBL 000410R	ST.ASZ 000020	006 XQTO = 000001
B.FFSD 000222	010 FN.EMA 000012	011 OUTLP 001224R	ST.BSZ 000024	006 XSULOA = 000005
B.FMHR 000172	010 FN.EMB 000014	011 PFL 000121R	ST.BTC 000000	006 \$CBTA = ***** G
B.FQLS 000162	010 FN.EMC 000016	011 PRERR 001356R	ST.CSZ 000030	006 \$CDDNG = ***** G
B.FSAR 000100	010 FN.FSA 000000	011 QE.RD1 = 000144	ST.HRL 000010	006 \$DAT = ***** G
B.FSBZ 000102	010 FN.FSB 000002	011 Q.FDSC 000004	ST.LEN 000044	006 \$\$\$ = 000000R
B.FSCZ 000104	010 FN.FSC 000004	011 Q.NQBK 000000	ST.QRY 000002	006 \$\$\$ARG = 000002
B.HBLK 000120	010 FN.LGQ 000034	011 Q.SIZE 000014	ST.OSZ 000034	006 \$\$\$OST = 000010
B.HDOC 000114	010 FN.LGU 000036	011 RCVCHR 000006R	ST.SCH 000040	006 \$\$\$T1 = 000000
B.HRLP 000126			ST.UHL 000004	
B.HRLR 000122			ST.XLT 000014	
.ABS. 000000				
001362				
SRCOFF 000122				
FDSCOF 000010				

DBSTAT: M1110 27-MAR-80 13:38 PAGE 13-2
SYMBOL TABLE

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

SUSOFF	000012	004
DHROFF	000012	005
STTOFF	000044	006
QSPLOF	000014	007
BSTOFF	000772	010
FNOFFS	000044	011
WNODOF	000010	012
DNODOF	000010	013
\$DPB\$\$	000010	014

ERRORS DETECTED: 0

VIRTUAL MEMORY USED: 3607 WORDS (15 PAGES)
DYNAMIC MEMORY: 4916 WORDS (18 PAGES)
ELAPSED TIME: 00:00:26
DBSTAT, DBSTAT/SP=C20.13P.M, DBSTAT

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

HRSTAT: M000-M1110 27-MAR-88 13:38
TABLE OF CONTENTS:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

10- 2. COLLECT HOURLY STATISTICS.

HRSTAT: MACRO-M1110 27-MAR-80 13:38 PAGE:10

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
1      .TITLE: HRSTAT.  
2      .SBTTL: COLLECT HOURLY STATISTICS.  
3      ;  
4      ;  
5      .MCALL: GTIM$C,EXIT$S,ROST$,SDAT$  
6      ;  
7      ;  
8      .GLOBL: HRSTFG,LDAY,LHOUR.  
9      .GLOBL: CHSTAT,CDSTAT,LHSTAT,LDSTAT.  
10     ;  
11     ; DATA  
12     ;  
13     ;  
14     000000      TIMBUF: .BLKW 8.      ;CURRENT TIME  
15     000020      SNDPKT: .BLKW 13.  
16     000052 000004      CMD: .WORD 4  
17     000054 074741 077770      .RAD50 /STATS/  
18     ;
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```

20      ;
21 000060      START:
22 000060      GTIM$C- TIMBUF-          ;CURRENT-TIME-
23      ;
24 000066 005767 000000G-      TST-      HRSTFG-          ;BRANCH-IF-NOT-
25 000072 001010      BNE-      1$          ;FIRST-TIME-THROUGH-
26 000074 016767 177704 000000G-      MOV-      TIMBUF+G.TIDA,LDAY-      ;INIT-TIME
27 000102 016767 177700 000000G-      MOV-      TIMBUF+G.TIHR,LHOUR-
28 000110 005267 000000G-      INC-      HRSTFG-          ;SHOW-INIT
29      ;
30 000114 026767 177666 000000G- 1$:      CMP-      TIMBUF+G.TIHR,LHOUR-      ;BRANCH-IF-HOUR-TURNED-OVER-
31 000122 001003      BNE-      HTURN-          ;
32 000124      EXIT$S-          ;ELSE-NOTHING-TO-DO-
33      ;
34      ; HOUR-TURNED-OVER-
35 000132 016767 177650 000000G- HTURN: MOV-      TIMBUF+G.TIHR,LHOUR-      ;NEW-HOUR-
36      ; ACCUMULATE-HOURLY-STATS-
37 000140 012700 000000G-      MOV-      #CHSTAT,R0
38 000144 012701 000000G-      MOV-      #LHSTAT,R1
39 000150 012702 000000G-      MOV-      #CDSTAT,R2
40 000154 061022-      ADD-      (R0),(R2)+          ;#-OF-BATCHES-
41 000156 011021      MOV-      (R0),(R1)+
42 000160 005020      CLR-      (R0)+
43 000162 061022-      ADD-      (R0),(R2)+          ;#-OF-QUERIES-
44 000164 011021      MOV-      (R0),(R1)+
45 000166 005020      CLR-      (R0)+
46      ; ACCUMULATE-DOUBLE-WORD-COUNTS-IN-REMAINDER-OF-STATS-RECORD
47 000170 012703 000010      MOV-      #ST.LEN/4-1,R3          ;#-OF-DOUBLE-WORD-ENTRIES-
48 000174 066062 000002 000002- 1$:      ADD-      2(R0),2(R2)
49 000202 005512-      ADC-      (R2)
50 000204 061012-      ADD-      (R0),(R2)
51 000206 062702 000004      ADD-      #4,R2
52 000212 011021      MOV-      (R0),(R1)+
53 000214 005020      CLR-      (R0)+
54 000216 011021      MOV-      (R0),(R1)+
55 000220 005020      CLR-      (R0)+
56 000222 077314      SOB-      R3,1$          ;DO-ALL-ENTRIES-
57      ;
58 000224 026767 177554 000000G-      CMP-      TIMBUF+G.TIDA,LDAY-      ;BRANCH-IF-DAY-TURNED-OVER-
59 000232 001027      BNE-      DTURN-          ;
60      ;
61      ; PRINT-HOURLY-STATS-ON-CONSOLE-
62      ;
63 000234 012704 000052'      MOV-      #CMD,R4
64 000240 012700 000020'      MOV-      #SNPKT,R0
65 000244 012420      MOV-      (R4)+,(R0)+
66 000246 005001      CLR-      R1
67 000250 010120      MOV-      R1,(R0)+
68 000252 000000      HALT-
69 000254      SDAT$      P4,SNPKT-
70 000266      ROST$      R4
71 000304      EXIT$S-          ;ELSE-DONE
72      ;
73      ; DAY-TURNED-OVER-
74 000312 016767 177466 000000G- DTURN: MOV-      TIMBUF+G.TIDA,LDAY-      ;NEW-DAY-
75      ; ACCUMULATE-DAILY-STATS-
76 000320 012700 000000G-      MOV-      #CDSTAT,R0

```

HRSTAT: MACRO-M1110 7-MAR-80 13:38 PAGE 11-1
COLLECT HOURLY STATISTICS.

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

77	000324	012701	000000G		MOV	#LDSTAT,R1	
78	000330	012702	000022		MOV	#ST.LEN/2,R2	:SIZE OF STAT AREA
79	000334	011021		1\$:	MOV	(R0),(R1)+	
80	000336	005020			CLR	(R0)+	
81	000340	077203			SQB	R2,1\$	
82				:			
83	000342				EXIT\$S		
84				:			
85				:			
86				:			
87	000060				.END	START	

BITVAL=000000	B.HDOC 000114	010 FN.EMB 000014	011 R.QSGC=000015	ST.UHL 000004	006
BIT0 =000001	B.HRLP 000126	010 FN.EMC 000016	011 R.QSPC=000014	ST.XLT 000014	006
BIT1 =000002	B.HRLR 000122	010 FN.FSA 000000	011 R.QSPN=000006	SU.DBU=000004	
BIT10 =002000	B.HRLW 000124	010 FN.FSB 000002	011 R.QSPF=000012	SU.DON=000006	
BIT11 =004000	B.NMBR 000052	010 FN.FSC 000004	011 R.QSTN=000002	SU.IDL=000000	
BIT12 =010000	B.NORY 000232	010 FN.LGO 000034	011 SHDPKT 000020R	SU.LOD=000001	
BIT13 =020000	B.QLSZ 000106	010 FN.LGU 000036	011 SR.ARE 000114	002 SU.SRC=000002	
BIT14 =040000	B.QMAP 000234	010 FN.MFO 000024	011 SR.ARS 000106	002 SU.SRP=000005	
BIT15 =100000	B.QSPL 000316	010 FN.MHR 000010	011 SR.DRY 000010	002 SU.XPD=000003	
UIT2 =000004	B.QTTM 000076	010 FN.NMB 000044	011 SR.DLT 000014	002 S.DABA=000006	
AIT3 =000010	B.QUQP 000056	010 FN.OLS 000006	011 SR.ECB 000047	002 S.DAEF=000010	
3IT4 =000020	B.SFDB 000010	010 FN.QRY 000020	011 SR.ECH 000046	002 S.DATN=000002	
BIT5 =000040	B.SIZE 000772	010 FN.SFO 000030	011 SR.ECL 000050	002 S.HRL =000240	
BIT6 =000100	B.SNDP 000012	010 FN.SF1 000032	011 SR.FIB 000012	002 TIMBUF 000000R	
BIT7 =000200	B.SSD 000004	010 FN.SHD 000042	011 SR.GRE 000100	002 WN.NTP 000004	012
BIT8 =000400	B.SSOF 000050	010 G.TIBA=000002	SR.GRS 000072	002 WN.NXT 000006	012
BIT9 =001000	B.STAT 000044	010 G.TICP=000016	SR.LEN 000122	002 WN.ROT 000002	012
BS.CLS=000002	B.STTE 000053	010 G.TICT=000014	SR.LIN 000066	002 WN.SIZ 000010	012
BS.DBU=000004	B.UDOC 000110	010 G.TIDA=000004	SR.LIP 000062	002 WN.SRC=000000	012
BS.INA=000000	CDSTAT=***** G	G.TIHR=000006	SR.MDN 000006	002 WN.TYP 000001	012
BS.OPN=000001	CF.B0 =000070	G.TINI=000010	SR.NDC 000042	002 WORD0 =000000	
BS.SRC=000003	CF.B2 =000067	G.TIMO=000002	SR.NDS 000036	002 WORD1 =000002	
BYTE0 =000000	CF.B4 =000066	G.TISC=000012	SR.NIN 000030	002 WORD2 =000004	
BYTE1 =000001	CF.B6 =000065	G.TIYR=000000	SR.NIP 000022	002 WORD3 =000005	
BYTE2 =000002	CF.DR0=000064	HRSTFG=***** G	SR.SDB 000032	002 WORD4 =000010	
BYTE3 =000003	CF.DR1=000063	HTURN=000132R	SR.SRC 000002	002 WORD5 =000012	
BYTE4 =000004	CHSTAT=***** G	LDAY =***** G	SR.SUN 000000	002 WORD6 =000014	
BYTE5 =000005	CMD 000052R	LDSTAT=***** G	SR.TWS 000056	002 WORD7 =000016	
BYTE6 =000006	DBSLN=000116	LHOUR =***** G	SR.WSL 000052	002 WORD8 =000020	
BYTE7 =000007	DH.BFO 000002	LHSTAT=***** G	SR.YR 000004	002 WORD9 =000022	
BYTE8 =000010	DH.BF1 000004	005 M =000062	SR.11N 000024	002 WRDVAL=000024	
BYTE9 =000011	DH.CTL 000000	005 N =000002	SR.11P 000016	002 XBATC=000013	
BYTVAL=000012	DH.DMC 000010	005 N.BFAC=000004	SS.FID 000002	004 XBLOR=000004	
B.BSTA 000054	010 DH.FLG 000006	005 N.BHGH=000006	SS.FNB 000010	004 XDBPR=000012	
B.CNTX 000046	010 DN.DCK 000000	013 N.BTCH=000004	SS.FVR 000006	004 XDMCIN=000006	
B.CQUQ 000060	010 DN.NTP 000004	013 N.BUFB=004000	SS.LEN 000012	004 XFOSHR=000007	
B.FEMA 000132	010 DN.NXT 000006	013 N.BUFW=002000	SS.STT 000000	004 XGTSRE=000014	
B.FEMB 000142	010 DN.ROT 000002	013 N.FOS =000764	START 000060R	XHITSK=000011	
B.FEMC 000152	010 DN.SIZ 000010	013 N.PKSZ=000020	ST.ASZ 000020	006 XHLMER=000002	
B.FFSA 000202	010 DTURN 000312R	N.PKTS=000043	ST.BSZ 000024	006 XHOTS=000010	
B.FFSB 000212	010 FD.FID 000000	003 N.QURY=000031	ST.BTC 000000	006 XISCHE=000000	
B.FFSC 000222	010 FD.FNB 000006	003 N.SUNT=000002	ST.CSZ 000030	006 XOTS =000003	
B.FFMR 000172	010 FD.FVR 000004	003 GE.RO1=000144	ST.HRL 000010	006 XOT0 =000001	
B.FQLS 000162	010 FD.LEN 000010	003 Q.FDSC=000004	007 ST.LEN 000044	006 XSULO0=000005	
B.FSAZ 000100	010 FN.DBR 000026	011 Q.NQSK=000000	007 ST.QRY 000002	006 \$\$\$ =000000R	014
B.FSBZ 000102	010 FN.DBS 000022	011 Q.NUHL=000002	007 ST.QSZ 000034	006 \$\$\$OST=000016	
B.FSCZ 000104	010 FN.DHR 000040	011 Q.SIZE 000014	007 ST.SCH 000040	006 \$\$\$T1 =000002	
B.HBLK 000120	010 FN.EMA 000012	011			
ABS 000000	000				
SRCOFF 000350	001				
FDSCOF 000122	002				
SUSOFF 000010	003				
DHROFF 000012	004				
STTOFF 000012	005				
QSPLOF 000044	006				
	007				

HRSTAT: MACRO-M1110 27-MAR-80 13:38 PAGE 11-3
SYMBOL TABLE:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

BSTOFF: 000772 010
FN0FFS: 000044 011
WN0DOF: 000010 012
DN0DOF: 000010 013
\$DPB\$\$ 000004 014
ERRORS DETECTED: 0

VIRTUAL MEMORY USED: 3092 WORDS (13 PAGES)
DYNAMIC MEMORY: 3860 WOPDS (14 PAGES)
"LAPSED TIME: 00:00:20
HRSTAT,HRSTAT/-SP=C20.1JP.M,HRSTAT:

STATS: MACRO-M1110 27-MAR-80 13:39
TABLE OF CONTENTS:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

10- 2- DISPLAY SYSTEM STATISTICS.

```

1      .TITLE. STATS.
2      .SBTTL. DISPLAY SYSTEM STATISTICS.
3      ;
4      ;
5      .MCALL. RCVX$C,Q10W$S.
6      ;
7      ;
8      .GLOBL. CHSTAT,LHSTAT,CDSTAT,LDSTAT.
9      .GLOBL. $CBTA,$DDIV,$CDDMG.
10     ;
11     ;
12     000005      TILUN=5
13     000001      TIEF=1
14     027012      CNVT5=10.!BIT9!BIT10!24000
15     017012      CNVT3=10.!BIT9!BIT10!14000
16     011012      CNVT2=10.!BIT9!10000
17     013012      CNVT2S=10.!BIT9!BIT10!10000
18     ;

```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

Approved For Release 2005/07/20 : CIA-RDP85-00514R000100030001-3

Approved For Release 2005/07/20 : CIA-RDP85-00514R000100030001-3

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-2

STATS: MACRO-M1110 27-MAR-80 13:39 PAGE 14-2
SYMBOL TABLE:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

FDSCOF	000010	003
SUSOFF	000012	004
DHROFF	000012	005
STTORF	000044	006
QSPLDF	000014	007
OSTOFF	000772	010
FNOFFS	000044	011
WNODDF	000010	012
DNODDF	000010	013
\$DPB\$\$	000010	014

ERRORS DETECTED: 0

VIRTUAL MEMORY USED: 3718 WORDS (15 PAGES)

DYNAMIC MEMORY: 4916 WORDS (18 PAGES)

ELAPSED TIME: 00:00:26

SIATS,STATS--SP=[20.1]P.M,STATS

STATS MACRO-M1110 27-MAR-80 13:39 PAGE 14
DISPLAY SYSTEM STATISTICS

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
245  
246  
247  
248  
249  
250  
251 001506 060504  
252 001510 012401  
253 001512 011402  
254 001514 016500 000000  
255 001520  
256 001524 010167 176312  
257 001530 010267 176310  
258 001534 012701 000042  
259 001540 010306  
260 001542 005002  
261 001544  
262 001550  
263  
264  
265 000564  
;  
; CONVERT DOUBLE PRECISION VALUE TO ASCII  
; R3= ASCII DATA ADDRESS  
; R4= STATS VALUE INDEX  
;  
DBLCVT: ADD R5,R4 ; DOUBLE PRECISION DIVIDE  
MOV (R4)+,R1 ; BY BATCH NUMBER  
MOV (R4),R2  
MOV ST,BTC(R5),R0  
CALL $DDIV  
MOV R1,IBLPVL ; DOUBLE PRECISION CONVERT  
MOV P2,DBLPVL+2 ; TO ASCII  
MOV #DBLPVL,R1  
MOV R3,R0  
CLR R2  
CALL $CDDMG  
RTN  
;  
;  
; .END START
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

Approved For Release 2005/07/20 : CIA-RDP85-00514R000100030001-3

BITVAL = 000000	B.NORY 000232	010 FN.EMC 000016	011 Q.FDSC 000004	007 ST.UHL 000004	006
BIT0 = 000001	B.QLSZ 000106	010 FN.FSA 000000	011 Q.NDBK 000000	007 ST.XLT 000014	006
BIT1 = 000002	B.GMAP 000234	010 FN.FSB 000002	011 Q.NUHL 000002	007 SU.DBL 000004	
BIT10 = 002000	B.OSPL 000316	010 FN.FSC 000004	011 Q.SIZE 000014	007 SU.DON 000006	
BIT11 = 004000	B.QTTH 000076	010 FN.LGQ 000034	011 RCVCMD 000004R	SU.IDL 000000	
BIT12 = 010000	D.OUQP 000056	010 FN.LGU 000036	011 RCVCMD 000004R	SU.LOD 000001	
BIT13 = 020000	B.SFDB 000010	010 FN.MFO 000024	011 RCVDAT 000000R	SU.SRC 000002	
BIT14 = 040000	B.SIZE 000772	010 FN.MHR 000010	011 PCVPRM 000010R	SU.SRR 000005	
BIT15 = 100000	B.SNDP 000012	010 FN.NMB 000044	011 R.VXBA 000006	SU.XPD 000003	
BIT2 = 000004	B.SSQ 000004	010 FN.QLS 000006	011 R.VXTN 000002	S.HRL 000240	
BIT3 = 000010	B.SSQF 000050	010 FN.QRY 000020	011 SL 000040	TIEF 000001	
BIT4 = 000020	B.STAT 000044	010 FN.SFO 000030	011 SRT 000450R	TILUN 000005	
BIT5 = 000040	B.STTE 000053	010 FN.SFI 000032	011 SR.ARE 000114	002 TIOUT 001434R	
BIT6 = 000100	B.UDOC 000110	010 FN.SHD 000042	011 SR.ARS 000106	002 TST 000072R	
BIT7 = 000200	CDS 000534R	FSA 000414R	SR.DAY 000010	002 WN.NTP 000004	012
BIT8 = 000400	CDSTAT 000000 G	FSC 000432R	SR.DLT 000014	002 WN.NXT 000006	012
BIT9 = 001000	CF.B0 000070	FSC 000432R	SR.ECB 000047	002 WN.ROT 000002	012
BS.CLS 000002	CF.B2 000067	IOSTAT 000036R	SR.ECH 000046	002 WN.SIZ 000010	012
BS.DBU 000004	CF.B4 000066	IO.WLB 000000 GX	SR.ECL 000050	002 WN.SRC 000000	012
BS.INA 000000	CF.B6 000065	LDS 000550R	SR.FIB 000012	002 WN.TYP 000001	012
BS.OPN 000001	CF.DR0 000064	LDSTAT 000000 G	SR.GRE 000100	002 WORD0 000000	
BS.SRC 000003	CF.DR1 000063	LHS 000520R	SR.GRS 000072	002 WORD1 000002	
BYTE0 = 000000	CHS 000504R	LHSTAT 000000 G	SR.LEN 000122	002 WORD2 000004	
BYTE1 = 000001	CHSTAT 000000 G	LINE1 000046R	SR.LIN 000066	002 WORD3 000006	
BYTE2 = 000002	CNVT2 011012	LINE2 000130R	SR.LIP 000062	002 WORD4 000010	
BYTE3 = 000003	CNVT2S 013012	LINE3 000132R	SR.MON 000006	002 WORD5 000012	
BYTE4 = 000004	CNVT3 017012	LINE4 000242R	SR.NDC 000042	002 WORD6 000014	
BYTE5 = 000005	CNVT5 027012	LINE5 000352R	SR.NDS 000036	002 WORD7 000016	
BYTE6 = 000006	DBLCVT 001506R	LOOPS 001270R	SR.NIN 000030	002 WORD8 000020	
BYTE7 = 000007	DBLPVL 000042R	L1 0000062	SR.NIP 000022	002 WORD9 000022	
BYTE8 = 000010	DBSLEN 000116	L2 0000002	SR.SDB 000032	002 WRVAL 000024	
BYTE9 = 000011	DHR 000373R	L3 0000110	SR.SRC 000002	002 XBLCH 000013	
BYTVAL = 000012	DH.BF0 000002	L4 0000110	SR.SUN 000000	002 XBLCHA 000004	
B.BSTA 000054	010 DH.BF1 000004	L5 0000103	SR.TWS 000056	002 XDBPRO 000012	
B.CNTX 000046	010 DH.CTL 000000	005 M 0000062	SR.WSL 000052	002 XDMCIN 000006	
B.CQUX 000050	010 DH.DMC 000010	005 MVTSTG 000712R	SR.YR 000004	002 XFOSMR 000007	
B.FEMA 000132	010 DH.FLG 000006	005 N 000002	SR.1IN 000024	002 XGTSRE 000014	
B.FEMB 000142	010 DH.DCK 000000	013 NBT 000056R	SR.1IP 000016	002 XHITSK 000011	
B.FEMC 000152	010 DH.NTP 000004	013 N.BFAC 000004	SS.FID 000002	004 XHLMER 000002	
B.FFSA 000202	010 DN.NXT 000006	013 N.BHGH 000006	SS.FNB 000010	004 XHOTSX 000010	
B.FFSB 000212	010 DN.ROT 000002	013 N.BTCH 000004	SS.FVR 000006	004 XHSCH 000000	
B.FFSC 000222	010 DN.SIZ 000010	013 N.BUFB 000000	SS.LEN 000012	004 XOTS 000003	
B.FMHR 000172	010 DOLIN 001034R	N.BUFW 000200	SS.STT 000000	004 XOT0 000001	
B.FQLS 000162	010 DUH 000363R	N.FOS 0000764	START 000564R	XSL0A 000005	
B.FSAZ 000100	010 FD.FID 000000	003 N.PKSZ 000020	ST.ASZ 000020	006 XTI1 000402R	
B.FSBZ 000102	010 FD.FNB 000006	003 N.PKTS 000043	ST.BSZ 000024	006 XCBA 000000 G	
B.FFSCZ 000104	010 FD.FVR 000004	003 N.QURY 000031	ST.BTC 000000	006 XCDDMG 000000 G	
B.HBLK 000120	010 FD.LEN 000010	003 N.SUNT 000002	ST.CSZ 000030	006 XIDIV 000000 G	
B.HDOC 000114	010 FN.DBR 000026	011 OUTBL 000456R	ST.HRL 000010	006 \$\$\$ 000000R	014
B.HRLP 000126	010 FN.DBS 000022	011 OUTLOP 001414R	ST.LEN 000044	006 \$\$\$ARG 000002	
B.HZLR 000122	010 FN.DHR 000040	011 OE.R01 000144	ST.QRY 000002	006 \$\$\$OST 000010	
B.HRLW 000124	010 FN.DMA 000012	011 QLS 000441R	ST.QSZ 000034	006 \$\$\$T1 000000	
B.NMBR 000052	010 FN.EMB 000014	011 QRY 000352R	ST.SCH 000040	006	
ABS 000000	000				
001552	001				
SRCOFF 000122	002				

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

STATS: MACRO-M1110 27-MAR-80 13:39 PAGE 13
DISPLAY SYSTEM STATISTICS:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
144  
145  
146  
147  
148  
149 001034 012701 000352*  
150 001040 012700 000103  
151 001044 112721 000040  
152 001050 077003  
153  
154 001052 016503 000002  
155 001056 005002  
156 001060 071265 000000  
157 001064 010201  
158 001066 012700 000352*  
159 001072 012702 017012  
160 001076  
161 001102 112720 000056  
162 001106 070327 000144  
163 001112 005002  
164 001114 071265 000000  
165 001120 010201  
166 001122 012702 011012  
167 001126  
168  
169 001132 012703 000363*  
170 001136 012704 000004  
171 001142  
172 001146 012703 000373*  
173 001152 012704 000010  
174 001156  
175  
176 001162 016502 000014  
177 001166 016503 000016  
178 001172 016501 000000  
179 001176 070127 000074  
180 001202 071201  
181 001204 012700 000402*  
182 001210 010201  
183 001212 012702 017012  
184 001216  
185 001222 112720 000056  
186 001226 070327 000144  
187 001232 005002  
188 001234 071227 000074  
189 001240 010201  
190 001242 012702 011012  
191 001246  
192  
193 001252 012746 000004  
194 001256 010504  
195 001260 062704 000020  
196 001264 012700 000414*  
197 001270 012402  
198 001272 012403  
199 001274 071265 000000  
200 001300 010201
```

```
:  
: LINE 5  
:  
: R5= STATISTICS AREA ADDRESS  
:  
DOLINS: MOV. #LINES,R1  
MOV. #L5,R0  
1$: MOV. #1,(R1)+  
SOB. R0,1$  
:  
: QUERIES PER BATCH  
MOV. ST,ORY(R5),R3  
CLR. R2  
DIV. ST,BTC(R5),R2  
MOV. R2,R1  
MOV. #QRY,R0  
MOV. #CNVT3,R2  
CALL. $CBTA  
MOV. #1,(R0)+  
MUL. #100,,R3  
CLR. R2  
DIV. ST,BTC(R5),R2  
MOV. R2,R1  
MOV. #CNVT2,R2  
CALL. $CBTA  
:  
MOV. #DUH,R3  
MOV. #ST,UHL,R4  
CALL. DBLCVT  
MOV. #DHR,R3  
MOV. #ST,HRL,R4  
CALL. DBLCVT  
:  
: CALCULATE TRANSLATE TIME IN SECONDS  
MOV. ST,XLT(R5),R2  
MOV. ST,XLT+2(R5),R3  
MOV. ST,BTC(R5),R1  
MUL. #60,,R1  
DIV. R1,R2  
MOV. #XTM,R0  
MOV. R2,R1  
MOV. #CNVT3,R2  
CALL. $CBTA  
MOV. #1,(R0)+  
MUL. #100,,R3  
CLR. R2  
DIV. #60,,R2  
MOV. R2,R1  
MOV. #CNVT2,R2  
CALL. $CBTA  
:  
: CONVERT NEXT 4 VALUES  
MOV. #4,-(SP)  
MOV. R5,R4  
ADD. #ST,ASZ,R4  
MOV. #FSA,R0  
LOOP5: MOV. (R4)+,R2  
MOV. (R4)+,R3  
DIV. ST,BTC(R5),R2  
MOV. R2,R1  
:  
: CLEAR LINE 5 TO BLANKS  
:  
: QUERIES  
:  
: CALCULATE WHOLE NUMBER  
: FORMAT WHOLE NUMBER  
:  
: DECIMAL POINT  
: CALCULATE FRACTION  
:  
: FORMAT FRACTION  
:  
: DOC/UHL PER BATCH  
:  
: CALCULATE AND FORMAT  
: DOC-HRL PER BATCH  
:  
: CALCULATE AND FORMAT  
:  
: XLATE TIME IN TICS  
:  
: DIVIDE BY NUMBER OF  
: BATCHES TIMES TICKS/SEC  
:  
: CONVERT SECONDS  
: TO ASCII  
:  
: DECIMAL POINT  
: CALCULATE DECIMAL FRACTION  
: OF SECONDS  
:  
: CONVERT FRACTION TO ASCII  
:  
: COUNT  
: POINT TO FIRST STATS VALUE  
:  
: START OF OUTPUT DATA  
: DIVIDE BY NUMBER OF BATCHES  
:  
: CONVERT TO ASCII
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

STATS. M 001110 27-MAR-80 13:39 PAGE 13-1
 DISPLAY. S. MEM-STATISTICS.

Approved For Release 2005/07/20 : CIA-RDP85-00514R000100030001-3

201 001302 012702 027012	MOV.	#CHVT5,R2.	
202 001306	CALL.	\$CBTA.	
203 001312 062700 000002	ADD.	#2,R0	: TWO SPACES.
204 001316 005316	DEC.	(SP)	: LOOP 4 TIMES.
205 001320 001363	BNE.	LOOPS	
206 001322 005726	TST.	(SP)+	
207			: CLEAN STACK.
208 001324 016502 000040	: CALCULATE SEARCH TIME IN MINUTES AND SECONDS.		
209 001330 016503 000042	MOV.	ST.SCH(R5),R2.	: SECONDS.
210 001334 016501 000000	MOV.	ST.SCH+2(R5),R3	
211 001340 071201	MOV.	ST.BTC(R5),R1	: DIVIDE BY NUMBER OF BATCHES.
212	DIV.	R1,R2.	: R2 = SECONDS PER SEARCH.
213 001342 010203			: R3 = REMAINDER.
214 001344 006203	MOV.	R2,R3	: R3 = SECONDS PER SEARCH.
215 001346 005002	ASR.	R3	: R3 = SECONDS PER SEARCH PER SU.
216 001350 071227 000074	CLR.	R2.	
217	DIV.	#60.,R2.	: R2 = MINUTES.
218 001354 012700 000450*			: R3 = SECONDS.
219 001360 010201	MOV.	#SRT,R0	: CONVERT MINUTES TO ASCII.
220 001362 012702 013012	MOV.	R2,R1	
221 001366	MOV.	#CHVT25,R2.	
222 001372 112720 000072	CALL.	\$CBTA.	
223 001376 010301	MOV.	#*.,(R0)+	: COLON.
224 001400 012702 011012	MOV.	R3,R1	: CONVERT SECONDS TO ASCII.
225 001404	MOV.	#CHVT2,R2.	
226	CALL.	\$CBTA.	
227			
228	: OUTPUT THE 5 DATA LINES.		
229 001410 012702 000456*			
230 001414 012200	MOV.	#OUTBL,R2.	: LINE ADDRESS AND LENGTH.
231 001416 001404	OUTLOP:	(R2)+,R0	: ADDRESS.
232 001420 012201	BEQ.	1\$: DONE IF ZERO.
233 001422	MOV.	(R2)+,R1	: LENGTH.
234 001426 000772	CALL.	TIOUT.	: OUTPUT.
235	BR.	OUTLOP.	
236 001430 000167 177130			
237	1\$:	JMP.	START.
238			: DONE.
239			
240	: OUTPUT A STATISTICS LINE.		
241 001434	TIOUT:	QIOWS\$ #10,WLB,#TILUN,#TIEF,,#I0STAT,<R0,R1,#40>	
242 001504	RTN.		
243			

Approved For Release 2005/07/20 : CIA-RDP85-00514R000100030001-3

STATS: MACRO-M1110 27-MAR-80 13:39 PAGE 11-2
DISPLAY: SYSTEM-STATISTICS:

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
79      :  
80      : STATISTICS TYPE STRINGS  
81      :  
82 000504 103 125 122 CHS: .ASCII /CURRENT HOUR/  
      000507 122 105 116  
      000512 124 040 110  
      000515 117 125 122  
83 000520 040 040 040 LHS: .ASCII / LAST HOUR/  
      000523 114 101 123  
      000526 124 040 110  
      000531 117 125 122  
84 000534 040 103 125 CDS: .ASCII /CURRENT DAY/  
      000537 122 122 105  
      000542 116 124 040  
      000545 104 101 131  
85 000550 040 040 040 LDS: .ASCII / LAST DAY/  
      000553 040 114 101  
      000556 123 124 040  
      000561 104 101 131  
86      :
```

STATS. M 00000000 27-MAR-80 13:39 PAGE 12.
DISPLAY: S 00000000 EM-STATISTICS.

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3

```
88 000564          START: RCVX$C. ,RCVDAT.          ;GET PACKET.
89 000564          ; PARSE TYPE OF STATS. - SET UP POINTER TO PROPER STATS AREA.
90          MOV. #CHSTAT,R5          ;R5=STATS ADDRESS.
91 000572 012705 000000G.          MOV. #CHS,R3          ;R3=TYPE OF STATS STRING.
92 000576 012703 000504'          CMP. #2,RCVCHR.          ;CURRENT HOUR IF NO PARAM.
93 000602 022767 000002 177176    BNE. MVTSTG.          ;BRANCH IF CURRENT HOUR
94 000610 001040          CMP. #\"CH,RCVPRM.          ;BRANCH IF LAST HOUR
95 000612 022767 044103 177170    BEQ. MVTSTG.          ;BRANCH IF CURRENT DAY
96 000620 001434          MOV. #LHSTAT,R5          ;BRANCH IF LAST DAY
97 000622 012705 000000G.          MOV. #LDS,R3          ;BRANCH IF CURRENT DAY
98 000626 012703 000520'          CMP. #\"LD,RCVPRM.          ;BRANCH IF LAST DAY
99 000632 022767 044114 177150    BEQ. MVTSTG.          ;BRANCH IF LAST DAY
100 000640 001424          MOV. #CDSTAT,R5          ;BRANCH IF CURRENT DAY
101 000642 012705 000000G.          MOV. #CDS,R3          ;BRANCH IF LAST DAY
102 000646 012703 000534'          CMP. #\"CD,RCVPRM.          ;BRANCH IF LAST DAY
103 000652 022767 042103 177130    BEQ. MVTSTG.          ;BRANCH IF LAST DAY
104 000660 001414          MOV. #LSTAT,R5          ;BRANCH IF LAST DAY
105 000662 012705 000000G.          MOV. #LDS,R3          ;BRANCH IF LAST DAY
106 000666 012703 000550'          CMP. #\"LD,RCVPRM.          ;BRANCH IF LAST DAY
107 000672 022767 042114 177110    BEQ. MVTSTG.          ;BRANCH IF LAST DAY
108 000700 001404          MOV. #CHSTAT,R5          ;CURRENT HOUR IF
109 000702 012705 000000G.          MOV. #CHS,R3          ;BAD PARAMETER.
110 000706 012703 000504'          ;
111          ;
112          ; R5=ADDRESS OF STATS TABLE.
113          ;
114          ; LINE 1
115          ;
116 000712 012704 000072' MVTSTG: MOV. #TST,R4          ;MOVE STATS TYPE TO LINE 1
117 000716 012702 000014          MOV. #12,,R2.
118 000722 112324          1$: MOV. (R3)+(R4)+
119 000724 077202          SOB. R2,1$
120          ; NUMBER OF BATCHES.
121 000726 012700 000056'          MOV. #NBT,R0
122 000732 016501 000000          MOV. ST,BTC(R5),R1
123 000736 012702 027012          MOV. #CNVTS,R2
124 000742          CALL. #CBTA.
125          ;
126          ; SEE IF ANY STATS FOR THIS TIME PERIOD.
127 000746 005765 000000          TST. ST,BTC(R5)          ;CONTINUE IF THERE
128 000752 001030          BNE. DOLINS
129 000754 022767 042103 177026    CMP. #\"CD,RCVPRM.          ;CURRENT DAY?
130 000762 001003          BNE. 2$          ;NO
131 000764 012705 000000G.          MOV. #CHSTAT,R5          ;YES - TRY CURRENT HOUR
132 000770 000406          BR. 3$
133 000772 022767 042114 177010 2$: CMP. #\"LD,RCVPRM.          ;LAST DAY?
134 001000 001005          BNE. 4$          ;NO
135 001002 012705 000000G.          MOV. #LHSTAT,R5          ;YES - TRY LAST HOUR
136 001006 005765 000000          TST. ST,BTC(R5)          ;CONTINUE IF NEW TIME
137 001012 001010          BNE. DOLINS          ;PERIOD HAS STATS
138 001014 012700 000046'          MOV. #LINE1,R0          ;ELSE JUST OUTPUT
139 001020 012701 000040          MOV. #SL1,R1          ;FIRST LINE
140 001024          CALL. TIOUT.
141 001030 000167 177530          JMP. START.          ;AND FINISH
142          ;
```

Approved For Release 2005/07/28 : CIA-RDP85-00514R000100030001-3